Agenda Setting, Innovation, and State Gay Rights Policy: An Event History Analysis

Roddrick A. Colvin

By using gay rights policy as a framework, this research attempts to link the process of agenda-setting with the diffusion of innovation across the United States both theoretically and empirically. Based on independent variables that reflect both agenda-setting and diffusion, it is hypothesized that stronger predictive models will result from linking agenda-setting to innovation. While many scholars have found state-specific variables to be the strongest predictors of gay rights policy adoption, by joining agenda-setting and innovation, this research also suggests that other variables play an important role in the adoption of such policies. These variables are: previous adoption by a state's capital city, the party of the governor, corporate policy adoptions in the state, the diversity of the state's population, and the size of the gay and lesbian population.

To better understand how and why states adopt gay rights policies, this research conjoins agenda-setting and innovation, using theoretical frameworks from the literatures on each. Currently, little is known about which factors contribute to the adoption of state-level policies banning discrimination based on sexual orientation.

Policy Stages: A Model of the Process

Jenkins-Smith and Sabatier (1993) and Sabatier (1991, 1999) argue that researchers, practitioners, and teachers have broadly accepted a "stages heuristic" to public policy. In an effort to disentangle the policy process, studies of policymaking focused on discrete aspects. These aspects, or stages, assume a policymaking process that proceeds in a logical, stepwise fashion. While varying slightly in form, the process typically begins with problem identification and agenda-setting, and ends with implementation and evaluation. Jenkins-Smith and Sabatier (1993) note that while this approach has served policy research well in the past, it now has limited usefulness.

The author would like to thank the many people who provided comments on earlier versions of this paper, including; Norma M. Riccucci (Rutgers University), Scott Barclay (University at Albany) and Russ Lidman (Seattle University). The author also appreciates the helpful comments of the anonymous reviewers.

RODDRICK A. COLVIN is an assistant professor in the Department of Public Management, John Jay College of Criminal Justice, The City University of New York.

The American Review of Politics, Vol. 25, Fall, 2004: 241-263

Among their concerns are two especially important limitations that relate to this research. They note that the stages model is not really a causal model (Sabatier and Jenkins-Smith 1993, 3). While it does help to conceptualize policymaking into manageable units, it fails to identify forces that drive the process from one stage to the next. For example, the stages model does not improve the understanding of the link between problem identification and agenda-setting. In terms of the diffusion of innovation, it does not fully explain why gay rights policies move from the institutional agenda to adoption. Second, Sabatier and Jenkins-Smith point out that while the stages model acknowledges variations in the process, the sequence of stages creates descriptive inaccuracies. Understanding the process in stages, while helpful, can diminish the inherent connected nature of each stage; agenda-setting affects adoption, and evaluation affects problem identification. Although the stages model is helpful in organizing the way the policy process is understood, it is too linear and deterministic to serve as policy theory (Birkland 1997).

While several models that attempt to move beyond the stages concept have been developed, broad elements of the stages process still exist. For example, the multiple-streams framework developed by Kingdon (1995) does an excellent job of explaining problem identification and agenda-setting, but offers less insight into other elements of the policy process, such as innovation. Similarly, diffusion frameworks, developed and improved by Berry and Berry (1990, 1992) and Berry (1994) are exceptional in their assessment of how internal and external determinates can explain adoption, but their framework does not specify how an issue grabs the initial attention of policymakers.

While this research does not unify the entire policy process, it does focus on two stages that are rarely considered in the same empirical models: agenda-setting and innovation. Bringing these theories together will help to address some of the concerns raised by Sabatier (1991, 1999) and Jenkins-Smith and Sabatier (1993). Understanding gay rights policy in a more unified manner will draw critical connections between agenda-setting and adoption. It should also reduce descriptive inaccuracies because unification acknowledges their interactive influences. By establishing causal links and reducing descriptive inaccuracies, this research will provide a clearer basis for empirical hypothesis testing.

Literature

Agenda-setting: Determinants for Innovation

"Agenda setting, the transformation of social problems into political issues and proposals for government action, logically precedes adoption of

policy" (Hays and Glick 1997, 835). In order for policy innovation to occur, a problem cannot only be on the systemic agenda, but must be on the institutional agenda as well. The systemic agenda "consists of all the issues that are commonly perceived by members of the political community as meriting public attention and involving matters within the legitimate jurisdiction of existing government authority" (Cobb and Elder 1983, 85). The systemic agenda is society's strategy for discussing public problems. The institutional agenda is the list of items under serious consideration by policymakers (Birkland 1997; Cobb and Elder 1983; Johnson 1996). As Howlett and Ramesh (1995) note, the public agenda is for discussion, while the institutional agenda is for action.

This research relies extensively on Kingdon's (1995) "streams" metaphor for the policy process. For Kingdon, events can stimulate the opening of a "window of opportunity," which can lead to the possibility of policy innovation, but which does not guarantee innovation or change. When three complex processes, or streams, interact, innovation of controversial policies or policy change is more likely to occur.

Describing how the three streams interact, Kingdon observes that "the separate streams of problems, policies and politics come together at certain critical times. Policy solutions become joined to problems, and both are joined to favorable political forces" (1995, 20). At that point, an item moves to the institutional agenda. The merging of streams is a complicated process. It can be governed by compelling problems or happenings, including unanticipated trigger events, accidents, policy entrepreneurs, media attention, and internal events.

Diffusion of Innovation: Determinants for Adoption

The innovation literature suggests that the diffusion of public policies can occur spatially and temporally in a systematic pattern (Gray 1973; Walker 1969). According to Walker (1969), policies can "diffuse" geographically from one state to other states. The diffusion or spread of policy is based on social learning by policymakers. The central idea of social learning is that an individual (or state) learns from another by means of observational modeling (Rogers 1995).

Gray (1973) builds upon Walker's work by suggesting that diffusion can occur over time in much the same way as spatial diffusion. In this scenario, one or two states adopt a policy; other states wait to observe the impact of the policy before acting on the issues. Adoption by a few innovators would be followed by adoption by many followers and taper off with a few late adoptions. The cumulative numbers of adopters would display an S-curve. Furthermore, Gray (1973) suggests that some policies, like civil rights legislation, would never be adopted by certain states.

Walker (1969) and Gray (1973) pioneered spatial and temporal research for policy diffusion of innovation. Their work evaluates how diffusion of innovation occurs, but not why. In recent literature, the most thoroughly explored dimension of policy variation among states explores the internal and external determinants or characteristics of innovative units. Internal determinants are the characteristics of the community that can aid or deter innovation. Political, social, and economic factors are usually considered part of the internal determinants (Gray 1994). Mooney and Lee (1995) called these the "usual suspects" that influence policy innovation. These internal determinants include urbanism, population size, education, political ideology, and economic conditions.

While a wealth of quality research has been conducted on the effects of internal determinants and external (regional) diffusion, few have offered a unified theory of the diffusion of innovation. Berry and Berry (1990) and Berry (1999) offered such a theory and a model for its application. They merge the studies of internal and external determinants, thereby creating a unified model that built upon Mohr's (1969) theory. Mohr argued that the probability of innovation is inversely related to the strength of the obstacles to innovation and directly related to the motivation to innovate and the availability of resources for overcoming these obstacles (Berry and Berry 1990; Mohr 1969). For example, using event history analysis to predict the probability that a state will adopt a state lottery policy, Berry and Berry use socioeconomic and regional variables in a unified, single model. They found that a lottery is likely to be adopted when a state's fiscal health is weak, during an election year, when party control is split, where per capita income is high, where religious fundamentalism is low, and when neighboring states have adopted such policies (Berry and Berry 1990).

The agenda-setting research of Kingdon (1995) and the diffusion research of Berry and Berry (1990) and Berry (1999) provide the theoretical foundation of this research. Bringing these theories together will provide a better understanding of the effects that agenda-setting has on innovation and develop a unified model that move beyond the conceptually limiting notion of discrete policy "stages."

Gay Rights Policies in the United States

In 1979, California adopted the first state-level public policy banning discrimination based on sexual orientation. The executive order banned public employment discrimination. Since then, 22 other states and the District of Columbia have adopted policies prohibiting discrimination based on sexual orientation (National Gay and Lesbian Task Force 1999). These policies vary greatly in terms of their nature, scope, and coverage. They range

from simple executive orders protecting public employees from discrimination in hiring, firing, and promotion to more comprehensive statutes prohibiting discrimination in private and public institutions, including housing, credit, union practices, and accommodations.

Past research on adoption of gay rights policies has primarily been focused on the internal determinants or regional diffusion patterns as an explanation for policy adoption. As traditionally understood, jurisdictions that demonstrate ideal internal determinants for policy adoption have high urban concentrations, diverse populations (including a sizable gay community), and high-level socioeconomic factors (like income and education).

Some researchers who have considered gay rights policy adoption include Button, Rienzo, and Wald (1997), Haider-Markel and Meier (1996), Heablerle (1996), and Klawitter and Hammer (1999). Although not all of these studies examine state-level policies, insights can be drawn about methodology and results.

Button, Rienzo, and Wald (1997) have conducted the most comprehensive study of gay rights policies and innovation in the United States. Their sample consisted of 126 valid cases in 101 cities and 25 counties. These cases were identified using National Gay and Lesbian Task Force data.

Using descriptive statistics and logistic regression, Button, Rienzo, and Wald compared communities with gay rights policies to communities without such policies. Based on the results, Button, Rienzo, and Wald were able to build four models to explain the adoption of gay rights policies. The models grouped communities into four clusters: urbanism/social diversity, political opportunity structure, resource mobilization, and communal protest.

Their four models delineate among internal determinants to explain policy adoption. Together, the models suggest that large communities with a supportive political environment, a well-resourced gay community, and little opposition will most likely adopt gay rights policies.

Haider-Markel and Meier (1996, 334) studied gay politics and attempt to determine whether an interest group or a morality politics model best explained policy actions, writing that "the interest group model suggests that the important variables in predicting policy outputs are interest group resources, the values of political elites, and the normal incremental process of politics." Issues are perceived as less salient if there is little formal opposition, thus limiting the scope of conflict. In these scenarios, interest group resources, elite values, and past public policies were stronger predictors of policy innovation. In cases where the issues were made more salient (thus expanding the scope of conflict), Haider-Markel and Meier (1996) note that the morality theory model provides a better explanation of innovation. In this case, citizen values, the competitiveness of parties, and the party affiliation of politicians were influential factors.

Haider-Markel and Meier (1996) found that gay rights politics were not different from politics in other areas. In most cases, where the scope of conflict was limited, interest group politics best explained policies prohibiting discrimination, particularly elite values and past public policies. In cases where the scope of conflict was expanded, morality politics factors were important. In the case of gay rights politics, morality politics factors of religion, party competition, partisanship, and education were all influential.

The initial results match the findings in other gay rights policy research, namely Heaberle (1996). Using probit regression on data from U.S. cities with populations over 250,000 found, the author found that population density, education, and non-family households were the strongest predictors of the existence of a gay rights policy.

While the work of Haider-Markel and Meier (1996), Heaberle (1996) and Button, Rienzo, and Wald (1997) offer valuable insights, their results open opportunities for further exploration. If the identified factors alone explained why communities adopt such policies, many more communities would have adopted gay rights policies over the past 25 years. But many communities that appear to be ideal for innovation have not adopted gay rights policies; of the over 20,000 cities and counties in the United States, only about 155 have adopted such policies. Furthermore, of the 50 states, just 22 have adopted such policies in the past 21 years. This suggests that other factors also influence adoption of gay rights policies.

Klawitter and Hammer (1999) offer the most sophisticated research in the area of diffusion of innovation and sexual orientation. They studied the temporal and spatial diffusion of gay rights policies at the county level. Focusing on policies that prohibit private employment discrimination, the authors used a discrete hazard rate model to estimate the impact of internal and external determinants. They considered the usual suspects as well as regional adoptions at various levels of government. In terms of temporal diffusion, Klawitter and Hammer found that gay rights policies did not follow the S-curve adoption pattern posited by Gray (1973). However, the authors suggested that the potential to approximate this pattern was not completely refutable based on their results. But, the pattern of spatial diffusion did not spread in the way that Walker (1973) suggested either. While affirming the importance of some sociodemographic characteristics, Klawitter and Hammer concluded that the innovation theories of Walker (1969) and Gray (1973) did not reflect the adoption patterns of gay rights policies. This also suggests that gay rights policies act differently than policies studied in the original diffusion research.

Methodology

To assess the influence of agenda-setting on policy innovation, a

quantitative analysis of initial state adoptions of gay rights policy was conducted. The analytical strategy involved developing event history analysis models and testing them on data collected via content analysis, a survey, and archival documents, including newspapers, public government records, and published books.

Like Berry and Berry (1990), this research design incorporated internal and regional determinants into a unified theory of innovation. State-level data were analyzed from 1979—the year that California adopted the nation's first state-level gay rights policy—until 2000. This 21-year period is the risk period. As Berry and Berry (1990) noted, it is reasonable to assume that no state is "at risk" of adopting a given policy until at least one other state has acted on a similar policy.[1]

In the tradition of Berry and Berry (1990) and Hays and Glick (1997), an event history analysis of pooled, cross-sectional time series data was employed. The models are discrete time, maximum likelihood models. This allowed the estimation of the likelihood of adoption as a function of internal, external, and agenda-setting determinants (Berry and Berry 1990; Hays and Glick 1997; Klawitter and Hammer 1999). To test the hypothesis—that predictions of policy innovation will be improved if agenda-setting factors are incorporated into traditional models of policy innovation—three logistic models were estimated. The first model considered state-specific determinants. The second model considered the agenda-setting determinants. The third model considered both state-specific and agenda-setting variables in one unified model.

Variable and Measures

Nine agenda-setting measures; ten internal, state determinant measures; and one external (regional) determinant measure were collected to create the data set.

Dependent Variable

The dependent variable for these models is the adoption of a state gay rights policy covering a minimum of public employment by a state. To analyze patterns of adoption, yearly events of gay rights policy adoptions are included in the risk period. The unit of analysis is a "state-year," and the data are stacked cross-sectionally over the risk period. For each year, a dichotomous (0, 1) adoption variable is included. The variable equals 0 for every year prior to state policy adoption and 1 for the year of adoption. States drop from the risk set after they experience the event of a policy adoption. States that never innovate remain in the risk set through 2000.

Independent Variables: Agenda-setting

The agenda-setting variables include: pro-gay policy entrepreneurs, positive media, impartial media, first policy adoption by a major corporation, percent of major companies in the state with policies, the percent of universities with policies in the state, first domestic partnership policy adopted by a university, protesters or opposition, and policy adoption by the capital city and/or the largest city. The entrepreneur and the media variables are drawn directly from the agenda-setting literature (Hays and Glick 1997; Kingdon 1995; Mintrom 2000). Kingdon discussed the role of policy entrepreneurs and the media in getting an issue onto the institutional agenda. Hays and Glick also focus on media influence as an agenda-setting variable. Mintrom (2000) devotes attention to entrepreneurs as a critical link in policy adoption. The selection of "previous" adoptions by Fortune 500 corporations, universities, and other cities builds on the idea of trigger or focusing events (Birkland 1997; Cobb and Elder 1983) as mechanisms that can get the attention of the public or policymakers. In the same fashion that adoptions by contiguous states can influence innovation, actions by internal actors are also believed to influence innovation.

Policy Entrepreneurs. A mail survey to state-level civil rights policy experts in each state provided evidence of state-level gay rights policy entrepreneurs. Experts were surveyed at the American Civil Liberties Union (ACLU) and the Federation of Statewide Lesbian, Gay, Bisexual and Transgender Advocacy Organizations. The survey asked respondents to name the most important gay rights policy entrepreneur in the state (if any), record the year in which he or she first advocated for inclusion of sexual orientation into policy, and identify entrepreneurs who advocate opposing views and when they entered the policy debate.

Based on the survey information, a "presence" variable was constructed. The presence variable was coded 1 for all state years that an entrepreneur was identified as present. In cases where two policy entrepreneurs were identified, the earliest presence was used. The variable was coded 0 where no policy entrepreneur was present. According to the hypothesis, policy entrepreneurs should be present in states that adopt policies including sexual orientation.

Media and Framing. In order to assess the role of the media, a content analysis of newspaper articles was constructed via the Lexis-Nexis database. The variable included the year preceding policy adoption or 2000, if no adoption had occurred. Since the type of attention by the media was more important than the level of its attention, the framing of gay issues was considered. Newspaper articles that advocated adoption of such policies or reported adoption of gay rights policies in other communities were considered

positive. Negative newspaper coverage included articles opposing the adoption of such policies or reporting the defeat of such policies in other communities. Neutral articles presented the issues without a particularly positive or negative frame. This approach mirrored the innovative work of Weart (1988), who coded the title of each article about nuclear energy as either positive (hopeful about the use of nuclear energy) or negative (fearful about the uses of nuclear energy). Baumgartner and Jones (1993) also applied this method to their research, and found that in most cases, articles could be coded by asking a simple question: If you were an industry leader, would you be pleased or unhappy to see such a headline? This research employed a similar technique. For the media content analysis, I asked: If you were a gay rights leader, would you be pleased or unhappy to see such a headline? For objectivity, a second coder was employed. To measure agreement between coders and coding reliability, Cohen's Kappa statistic computed for all cases was .87.

A ratio of positive to negative articles in each period was calculated. It was assumed that the framing of gay rights issues would have a direct influence on whether that state adopted a policy that included sexual orientation. Under this assumption, states that adopt such policies should produce a higher percentage of positive newspaper articles than negative articles. Positive media coverage should help to get the issue on the legislative agenda in an adoptable form.[2]

Trigger Events. To determine the extent to which universities and major corporations influence the agendas of state level government, trigger events within each state were tracked. Trigger events were defined as the inclusion of sexual orientation protection in the employment policies of Fortune 500 companies and universities in the state.[3] For corporate action, two measures were created. Based on data from the Human Rights Campaign, the first known policy adoption was noted as a dichotomous variable, and the adoption year was indicated. Second, a measure of the percentage of Fortune 500 companies in the state with gay rights policies was developed.[4]

For colleges and universities, the first known policy adoption was captured in a dichotomous variable, while additional information was collected on the percentage of schools with gay rights policies. In each state, any time a antidiscrimination policy was enacted at a state's Fortune 500 company or university, it was considered it a trigger event.

To better understand the influence of these institutions on gay rights policy adoption, data about the Fortune 500 companies and universities that offered domestic partner benefits was also collected. If most of the major institutions had gay rights policies and offered benefits to domestic partners, it was hypothesized that states would be more likely to adopt such policies. By using these variables, it was assumed that adopting states would show a higher percentage of trigger institutions.

City Adoptions. In the same sense that regional actions can affect a state's enactment of gay rights policies, the existence of such policies at local level can also affect state adoption. A dichotomous variable was used to indicate the existence of a gay rights policy in the state's largest city and capital city. Adoption of a policy was coded 1; no policy was coded 0.

Independent Variables: State Characteristics

In addition to the agenda-setting variables, several other external and internal determinants were considered. As noted earlier, the best predictors of policy adoption are the internal social, economic and demographic characteristics of a community. To confirm previous research, the following usual suspects were used: population, diversity and urbanism, affluence and education, gay and lesbian population, political environment, and regional influences. The selection of the internal determinants came from the diffusion and gay rights literatures (Berry and Berry 1990; Haeberle 1996; Klawitter and Flatt 1998; Wald, Button, Rienzo 1996). To date, most gay rights analysis of policy adoption has only focused on city—or county—level adoptions. While Haider-Markel and Meier (1996) conduct gay rights analysis at the state level, their interest is not innovation. Since most of the results for innovation of gay rights policies are based on city and county research, these variables were employed for analysis.

Population, Diversity, and Urbanism. When the unit of analysis is a city or county, population has proven to be one of the strongest predictors for the existence of gay rights policies (Dorris 1999; Heaberle 1996; Wald, Button, and Rienzo 1996). Urban locations with diverse populations are more likely to have an accepting attitude toward homosexuality and to support gay rights policies. Button, Rienzo, and Wald (1997) refer to these variables as the social diversity factor.

States with higher percentages of city dwellers and more diverse populations are more likely to adopt a gay rights policy. To test these assumptions, several variables related to population and diversity were collected. First, state-level population data were collected. To determine the urbanization of a state, the percentage of the population living in an urban area was collected. To measure diversity, the percentage of each state that was black or Hispanic (minority) was calculated. Button, Rienzo and Wald (1997) suggested that populations with higher percentages of minorities were more likely to have a gay rights policy than more homogeneous populations. Under this assumption, more heterogeneous states are more likely to adopt such a policy. All data for the population and diversity variables were drawn from the U.S. Census annual population estimates and the U.S. Statistical Abstracts.

Affluence and Education. A number of studies have identified income and education as predictors of gay rights policy adoption (Dorris 1999; Haeberle 1996; Wald, Button, and Rienzo 1996). Since income is highly correlated to education, these two measures are often used interchangeably or included in a single factor (e.g., affluence). Wald, Button, and Rienzo (1996) categorized these factors under the social diversity/urbanism factor as well. The assumption is that communities with higher incomes and/or education levels are more likely to adopt antidiscrimination policies, suggesting that affluence correlates to more broad-mindedness (Dorris 1999). To measure affluence, data on state per capita income from the Department of Commerce's Bureau of Economic Analysis and education levels for from the U.S. Census data population estimates were collected. The measure used for education was the percentage of adults over 25 with 16 or more years of formal education.

Gay and Lesbian Population. Studies related to interest groups or identity politics often consider resource mobilization a factor in policy (Dorris 1999; Gamble 1997; Haider-Markel and Meier 1996; Wald, Button, and Rienzo 1996). Communities that mobilize and focus resources are more likely to pass policies in their own favor. Scholars have identified population, density, and urbanism as determinants of gay rights policy adoption: a high concentration of gay men and lesbians will yield a more mobilized community that will, in turn, push gay rights policies toward adoption.

Since no authoritative data exists on the size of the gay or lesbian populations, proxy measures were employed. One measure was the number of households with unmarried, same-sex "partners" as enumerated in the 1990 and 2000 U.S. Census. The work of Button, Rienzo, and Wald (1997), the econometric works of Badgett (1995) and the research of Klawitter and Flatt (1998) all employ this data source as a measure of the gay and lesbian population. Although not a perfect measure—many gay and lesbians who are not living with partners are not included in the count—Wald, Button, and Rienzo (1996) and Haeberle (1996) found that it correlated to policy adoption. For this reason, the same measure was employed. This data set had two interval points: 1990 and 2000.

An additional measure was used to approximate the gay and lesbian population in each state: gay bars and services. For the interval years of 1980, 1990, and 2000, the *Damron Address Book* identified these specialized services. The Damron Company has published travel guides for gay and lesbian travelers since 1964. By no means comprehensive, the number of listed bars and services nevertheless serves as a proxy for the gay and lesbian population. The total number of services for each state was divided by the state population data to generate a "gay services" ratio. Like urbanization, it is hypothesized that a high ratio will increase the probability of policy adoption.[5]

Protesters. Since opposition to gay rights policies is common, it is necessary to measure community opposition to innovation. Measuring the opponents of a policy is no easier than measuring its proponents. To that end, proxies to estimate opposition to gay rights policies were used. Strickland and Whicker (1992) estimated state abortion restrictions and Dorris (1999) estimated gay rights laws at the local level using conservative and fundamentalist church membership. Like Strickland and Whicker (1992) and Dorris (1999), the number of Catholic, American Baptist, Church of God, Southern Baptist, Assemblies of God, Latter Day Saints (Mormons), and United Methodist church members in each state was collected.[6] While not a perfect proxy, it provided prima facie evidence of those most likely to mobilize against such policies. The percentage of each state's population belonging to those denominations was calculated. As Wald, Button, and Rienzo (1996) noted, opposition to homosexuality is central to the definition of the Christian fundamentalist movement.

Political Environment. The political environment of a state affects the likelihood of gay rights policy adoption. As Kincaid (1980, 91) suggested, political culture is "an enduring set of publicly shared and socially communicated beliefs, values, and traditions about politics which constitutes a general framework of plans, recipes, rules, and instructions for the conduct of political life, especially who gets what, when, and how."

To understand the political culture, two measures were employed. The first measure was the political party of the governor for each state year. Democrat governors were scored 1 and Republican governors were scored 0. The second measure accounted for the party controlling the state legislatures, and was also coded dichotomously, Democratic as 1 and Republican as 0.

Regional (External) Influences

While regional effects are not the primary focus of this research, one measure to account for the influence of neighboring states was used. For the 48 contiguous states, the number of neighboring states previously adopting a gay rights policy was included. This method is consistent with the approach used by Berry and Berry (1990) to evaluate regional effects.

Event History Analysis: Overview

Event history analysis is the study of events, the duration of time between events, and the probability of events occurring at selected points in time (Barton and Pillai 1995). The goal of event history analysis is to explain a qualitative change an "event" that occurs in the behavior of an indi-

vidual at a particular point in time (Berry and Berry 1990). This methodology allows for the estimation the probability of policy adoption in any given period of time—depending on a number of factors, including adoptions in previous periods. In terms of policy, event history analysis can help to predict the likelihood of the "event" of policy innovation by states.

Central to event history analysis are the concepts of risk set and hazard. The risk set is the group of individuals "at risk" of cases experiencing an event at a particular time (Barton and Pillai 1995; Berry and Berry 1990). In cases where events can only occur once, the number of cases in the risk set decreases once the event is experienced. The hazard is the probability or likelihood of a case or individual experiencing the event during the "at risk" status. In event history analysis, the dependent variable is the hazard, which is unobservable, but controls the likelihood of events occurring and the pace of their occurrence (Allison 1984). Thus, the observable variable becomes the occurrence or nonoccurrence of the event.

Event history analysis handles censoring and truncation of data that varies over time better than traditional multiple regression models. Censoring exists when information about the duration of the risk period is incomplete due to a limited observation period (Yamaguchi 1991). The risk period is the time frame or period during which individuals at risk of experiencing an event are observed. If information is missing before the beginning of the risk period, it is termed "left censoring." If information is missing after the end of the risk period, it is known as "right censoring." Truncation is a special type of censoring characterized by a partial observation during the risk period. Among censored observations, right-truncated observations occur most frequently in social science research (Yamaguchi 1991).

In terms of policy innovation among states, communities not experiencing the event during the risk period constitute missing and right-censored data. Linear and logit regression models, in their conventional usage, do not distinguish between full observations and censored observations. A model that includes right-censored observations treats them as having experienced the event (policy adoption) when in fact they have not (Box-Steffenmeier and Jones 1997). Event history analysis can distinguish between full and censored observations without eliminating censored observations from the data set. Elimination of observations would cause selection bias, possibly creating a data set more prone to experiencing the event. Event history analysis also eliminates the need to create an indicator variable in an attempt to measure variability (Box-Steffenmeier and Jones 1997). Dummy variables can be used to measure variability, but the variance tends to be larger relative to event history analysis (Yamaguchi 1991).

In addition to censoring and truncation, event history analysis also better handles data that varies over time than traditional multiple regression

models. Explanatory variables or covariates are usually thought of as time varying or time-invariant (Box-Steffenmeier and Jones 1997). Time-varying covariates change value over time. In terms of policy innovation, covariates such as media attention or population density can change over time. Covariates that remain the same over time, or are "time invariant," might include race, gender, or geographic region. While traditional regression models treat all variables as time invariant, event history analysis can scrutinize data that differs from the beginning of the risk period.

Results

Table 1 presents the pattern of diffusion of gay rights policy from 1979 until 2000. Adoption of policies over the 21-year period has been somewhat sporadic, with the bulk of states adopting in the early 1990s. From 1990 until 1993, eight of the 22 states or 36 percent, adopted gay rights policies. The second cluster of adoptions occurred in the late 1990s, from 1995 until 1997. In this year period, five states, or 22 percent adopted policies.

Table 1. Adopting States and Year

1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
CA			WI	OH NY		NM WA			PA	
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
CO	CT HI	LA NJ VT	MD MN		MA RI	IL	ME NH		IA NV	

Hypothesis: Event History Analysis Models

To test the hypothesis that predictions of policy innovation will be improved if agenda-setting factors are incorporated into traditional models of policy innovation, three logistic models were estimated. The results are presented in Table 2. As is true with all event history data, adoption was a relatively rare event, making prediction difficult, but not impossible (Berry and Berry 1990; Hays and Glick 1997). Twenty-two states adopted a gay rights policy out of a total of 897 total state year cases, meaning that 2.5 percent of the cases scored adoptions.

Model one shows the results of the internal state determinants model. Two of the variables related to adoption of gay rights were significant: the party of the governor and the percent of same-sex households.[7] Democratic Governors were more likely to adopt state policies, and the larger the percent of same-sex households, the more adoptions occurred. In this model, adoption was not related to urban density, diversity, or socioeconomic indicators, which are commonly associated with adoption research.

The results for the agenda-setting variables are presented in Model Two. These results reveal two significant variables: the first adoption of a antidiscrimination policy by a Fortune 500 company in the state, and the percentage of Fortune 500 companies in a state with antidiscrimination policies.[8] Of the two variables found to be significant, the variable indicating the first adoption by a Fortune 500 company is not in the hypothesized direction.

Model Three integrates the state determinants and the agenda-setting factors. The results of Model Three support the idea that the predictive power of the combined models is, in fact, greater than that of the models considered separately. The –2 log likelihood was 214.209, 212.211, and 185.485, respectively. Model Three's log suggests the best fit among the models. This result supports the hypothesis that incorporating agenda-setting variables can create a stronger model of prediction. The significant explanatory variables are: the percent of black and Hispanic people in the state, the percent of same-sex households in the state, policy adoption in the capital city, the party of the executive, and the percent of Fortune 500 companies adopting policies. While five of the variables are significant, several important observations should be noted. The party of the governor (from Model One) and the percent of Fortune 500 in the state with policies (from Model Two) remained significant in the combined model. Two agenda-setting variables were found to be significant: the percentage of Fortune 500 companies in the state that adopted policies and whether or not the capital city had a gay rights policy in place.[9]

Discussion

As the three models in Table 2 suggest, agenda-setting variables help to create stronger unified model when included with internal state determinants. In order to assess the full contribution of agenda-setting on innovation, the agenda-setting variables should be reviewed.

Policy Entrepreneurs

Kingdon (1995) suggested that policy entrepreneurs have the ability to "soften up" policy communities and the general public. Despite the importance that Kingdon and other scholars place on policy entrepreneurs, none of

Table 2. Internal, Agenda-Setting, and Combined Variables

Variable	Model One Coefficient	SE	Model Two Coefficient	SE	Model Three Coefficient	SE
STATE CHARACTERISTICS						
Percent urban	0.033	0.028			0.006	0.029
Percent black and Hispanic	-0.048	0.028			**-0.079****	**0.034**
Per capita Income	-0.021	0.174			-0.078	0.232
College	0.146	0.075			0.152	0.108
Same-sex households 2000	0.095	0.045			**0.139****	**0.064**
Total gay services	-0.049	0.029			-0.053	0.039
Percent of protesters	0.002	0.021			-0.016	0.028
Party of the governor	1.501**	0.602			**1.681****	**0.658**
Control of the Senate	-0.365	0.6			-0.623	0.697
Control of the House	0.561	0.68			0.031	0.738
Protesters	0.141	0.382			-0.016	0.565
AGENDA-SETTING						
Pro-gay rights entrepreneur			-0.481	0.535	-0.255	0.573
Positive media			0.007	0.021	0.002	0.023
Impartial media			0.03	0.021	0.007	0.029
First antidiscrimination policy by Fortune 500			-1.639**	0.674	-1.384	0.757
Percent of F-500 companies with antidiscrimination policies			0.358***	0.07	**0.423*****	**0.084**
Percent of universities with antidiscrimination policies			0.05	0.045	-0.07	0.066
First domestic partnership policy by university			0.427	0.593	0.289	0.681
Capital city			0.848	0.559	**1.45****	**0.677**
Largest city			0.365	0.541	0.295	0.639
Number of neighboring state adoptions			0.056	0.165	0.062	0.182
N	897		897		897	
–2 log likelihood	221.824		207.949		185.485	

*p < .10; **p < .05 ***p < .001. Models also include a set of year dummies not shown here. This dichotomous variables accounts for duration (time).

these models suggests that the presence of policy entrepreneurs was a significant factor in the adoption of gay rights policies. This research also differs from the results of Mintrom (1997), who found entrepreneurs to be a central factor in school choice consideration and adoption of policy. The results diverge for two possible reasons.

First, different policies are under consideration: gay rights versus school choice. It is possible that policy entrepreneurs perform differently depending on the policy area. Since little empirical research has been conducted on how, exactly, entrepreneurs are active in various policy realms, it is hard to determine how the policy area might dictate policy entrepreneur influence.

Second, different time periods were under consideration. Mintrom (1994, 1997) considered school choice adoption in a relatively short risk period for event history analysis from 1987 to 1992. In terms of collecting data about policy entrepreneurs, his surveyed population needed only to think about "active change agents" over the previous five years. Conversely, this survey's population was asked to consider policy entrepreneurs during the past 21 years. In many cases, entrepreneurs may have been forgotten or the date of their initial entry into the policy debate remembered incorrectly. It is far less likely that a particular entrepreneur from the 1970s would be reported and less likely still that the entrepreneur would be in the policy debate after 20 years. As the gay rights movement matured over time, policy entrepreneurs and other key figures may have rotated out of the policy debate.

While the policy entrepreneur variable does not have explanatory power in these models, the debate on the role and influence of policy entrepreneurs is not yet settled. More consistent definitions and an examination of their role within the same policy area would yield more reliable results.

Media and Framing

In all of the models, the amount of impartial and positive media was found to be an insignificant factor in policy adoption. The lack of its predictive value validates some of the research around media influence on the institutional agenda. Kingdon (1995) found that the media was less influential at moving issues onto the agenda than he had anticipated. He viewed the media as more likely to follow ideas than to create them. This research affirms Kingdon's assertions. The lack of explanatory power of the variables suggests the media's lack of ability to directly influence policy adoption.

Since the media variable was not designed to capture the influence of media attention on public opinion, it is difficult to assess the relationship between public opinion and adoption of policy. Newspapers are only one of

many ways that the media might influence public opinion, and they may not even be as influential as other media forms, like radio or television.

Trigger Events

The actions of universities and businesses in a state offer some interesting insights. In Model Three, the first adoption by a Fortune 500 company had an inverse relationship to policy adoption that was not in the hypothesized direction. The first adoption contrasts the percent of Fortune 500 companies in the state adopting antidiscrimination policies. In this case, the higher the percentage of Fortune 500 companies in the state, the more likely the state was to adopt such a policy itself. It is possible that the first adoption triggers a negative response from policymakers, but after many other businesses adopt, policymakers become more amenable toward adopting such policies as well. Similarly, politicians might find it more politically feasible to adopt policies after a number of large businesses in their community.

Gay Rights and Sexual Orientation

Beyond agenda-setting, the consideration of the adoption of gay rights policy in the literature on gay rights has primarily focused on a state's internal determinants. Based on the full model of policy adoption (Model Three), attention to research of Mooney and Lee (1995), including the usual socioeconomic and demographic suspects as explanatory factors of policy adoption, is warranted. This model, which includes agenda-setting variables, has a number of significant explanatory variables. Among these variables are the state internal characteristics: the black and Hispanic population as a percent of the state, policy adoption by the capital city, the percentage of same-sex households, and the political party of the executive. The black and Hispanic relationship to adoption was the reverse of what was hypothesized. This inverse relationship differs from Button, Rienzo, and Wald (1996), but affirms Haeberle's (1996) research. Button, Rienzo, and Wald suggest that conservative social values in these communities hamper policy adoption. Haeberle found diversity (in terms of race) increases the likelihood of gay rights policy adoption. Neither Button, Rienzo, and Wald, nor Haeberle consider state-level data, which distinguishes this study.

Finally, this model's results confirm the research of two prominent studies. First, the model suggests that Button, Rienzo, and Wald's (1997) political opportunity structure model best explains adoption. The political opportunity structure model acknowledges the presence of political institutions and actors that are receptive to policy innovation. As Button, Rienzo, and Wald suggested, the minority status of gay men and lesbians requires

that they enlist the help of influential allies and media to help promote policy adoption. In this model, the political environment is conducive to innovation. The results suggest that allies in the executive office, members of the corporate community, and the size and organization of the gay community are the bases for predicting policy adoption.

Conclusion

This research attempts to link the theoretical and empirical processes of agenda-setting to the diffusion of innovation of gay rights policy. It was hypothesized that a combination of these variables would affect the likelihood of policy adoption in a particular state. Employing event history analysis of pooled, cross-sectional, time series data on policy adoption of gay rights, it was found that the best model of gay rights adoption includes both agenda-setting and state context variables. Specifically, states are most likely to adopt gay rights policies when there is a sizable gay and lesbian community, a previously adopted gay rights policy in the state capital, a Democrat in the state executive office, and increasing adoptions by Fortune 500 companies in the state. Many of the socioeconomic and demographic variables, like urban density, income, and education were not found to be significant explanatory variables. This revelation is important because research often focuses on variables that are invariant. Attention to the more expansive list of variables highlighted several factors that can be influential, including adoption by lower levels of government, and election results.

While this research does not unify the entire policy process, it does help to develop explanations for the adoption of gay rights policy and makes important connections between agenda-setting and innovation. Bringing these theories together also addresses concerns raised by Sabatier (1991) and Sabatier and Jenkins-Smith (1993) regarding the stages of public policy. Understanding gay rights policy in a more unified manner draws critical links between agenda-setting and adoption. Furthermore, it reduces descriptive inaccuracies because unification acknowledges the interactive effects. By establishing causal links and reducing descriptive inaccuracies, this research provides a clear basis for empirical hypothesis testing.

Future research should focus on identifying what additional internal and external determinants influence policymakers, and discovering from what/whom they take their cues. More research into the application of event history analysis models and other models of predictions would deepen the understanding of the policy process.

APPENDIX

To further test the predictive value of the variables and the strength of the model, a fourth model is included here. The results are presented below. Model Four includes only the significant variables from Model Three: the percent of black and Hispanic people in the state, the percent of same-sex house holds in the state, capital city policy adoption, the party of the executive, and the percent of Fortune 500 companies adopting policies. The results confirm the hypothesis; all of the variables remained significant and the log likelihood suggested a better fit than Models One and Two. The –2-log likelihood for model four is 194.980, which is less than the log for Model One and Two.

Model 4—Analysis of Significant Variables

	Model Four	
Significance Variables	Coefficient	SE
Percent black and Hispanic	–.088***	0.025
Same-sex household in 2000	0.108**	0.039
Party of the executive	1.408*	0.547
Percent of F-500 companies with antidiscrimination policy	0.369***	0.056
Capital city	1.44**	0.475
N	897	
–2 log likelihood	194.98	

*p < .10; **p < .05 ***p < .001

NOTES

[1]Event history analysis provides an opportunity to look at "the state of the world" when an event takes place. The event of concern in this manuscript is the adoption of a gay right policy. The minimum standard for gay right policy is an executive order protecting public employees. Since I am interested in the *initial* adoption by a state, either order or statute is appropriate.

[2]Due to high multi-collinearity between negative and impartial newspaper coverage, the negative media variable was dropped from the analysis. Positive media and the impartial media variables were retained.

[3]Data on universities and corporations came from the Human Rights Campaign Fund and the 2000 list of Fortune 500 companies.

[4]A dummy variable was included in the analysis for states without Fortune 500 companies.

[5]Wald, Button, and Rienzo (1996) used the 1994 *Damron Address Book* data in their research as an estimate for population and resource mobilization.

[6]Data on the number of members was taken from the *Yearbook of American and Canadian Churches* (2000) and the *American Religion Data Archive* (1990).

[7]Due to high multi-collinearity between the 1990 and the 2000 Census variables, the 1990 data were dropped for the analysis.

[8]A dummy variable that indicated the existence of a Fortune 500 in the state was also in the analysis, but is not shown.

[9]A fourth model was included to test the true significance of the explanatory variables. Model Four can be found in the Appendix.

REFERENCES

Allison, Paul. 1984. *Event History Analysis: Regression for Longitudinal Event Data*. Beverly Hills: Sage Publications.

Badgett, M.V. Lee. 1995. The Wage Effects of Sexual Orientation Discrimination. *Industrial and Labor Relations Review* 48:726-739.

Barton, Thomas R., and Vijayan K. Pillai. 1995. Using an Event History Analysis to Evaluate Social Welfare Programs. *Research on Social Work Practice* 5:176-194.

Baumgartner, Frank, and Bryan Jones. 1993. *Agenda and Instability in American Politics.* Chicago: The University of Chicago Press.

Berry, Frances. 1994. Innovations in Public Management: The Adoption of Strategic Planning. *Public Administration Review* 54:322-330.

Berry, Frances Stokes, and William D. Berry. 1990. State Lottery Adoption as Policy Innovation: An Event History Analysis. *American Political Science Review* 84:395-415.

Berry, Frances Stokes, and William D. Berry. 1992. Tax Innovation in the State: Capitalizing on Political Opportunity. *American Journal of Political Science* 36:715-742.

Berry, William. 1999. *Theories of the Policy Process (Theoretical Lenses on Public Policy)*, ed. Paul Sabatier. Boulder, CO: Westview Press.

Birkland, Thomas. 1997. *After Disaster: Agenda Setting, Public Policy, and Focusing Events*. Washington, DC: Georgetown University Press.

Box-Steffensmeier, Janet M., and Bradford S. Jones. 1997. Tie is of the Essence: Event History Models in Political Science. *American Journal of Political Science* 41: 1414-1462.

Button, James W., Barbara A. Rienzo, and Kenneth D. Wald. 1997. *Private Lives, Public Conflicts: Battles Over Gay Rights in American Communities*. Washington, DC: Congressional Quarterly, Inc.

Cobb, Roger, and Charles Elder. 1983. *Participation in American Politics: the Dynamics of Agenda Building*, 2d ed. Baltimore: John Hopkins University Press.

Colvin, Roddrick. 2000. Improving State Policies Prohibiting Public Employment Discrimination Based on Sexual Orientation. *Review of Public Personnel Administration* 20:5-19.

Dorris, John. 1999. Antidiscrimination Laws in Local Government: Analysis of Municipal Lesbian and Gay Public Employment. In, *Gays and Lesbians in the Democratic Process*. New York: Columbia University Press.

Gamble, Barbara. 1997. Putting Civil Rights to a Popular Vote. *American Journal of Political Science* 41:245-269.

Glick, Henry R., and Scott Hays. 1997. Innovation and Reinvention in State Policymaking: Theory and the Evolution of Living Will Laws. *The Journal of Politics* 53:835-850.

Gray, Virginia. 1994. Competition, Emulation and Policy Innovation. Washington, DC: *Congressional Quarterly*.

Gray, Virginia. 1973. Rejoiner to "Comment" by Jack L. Walker. *American Political Science Review* 67:1192-1193.

Gray, Virginia. 1973. Innovation in the States: A Diffusion Study. *American Political Science Review* 67:1174-1185.

Haeberle, Steven. 1996. Gay Men and Lesbians at City Hall. *Social Science Quarterly* 77:190-197.

Haider-Markel, Donald, and Kenneth Meier. 1996. The Politics of Gay and Lesbian Rights: Expanding the Scope of the Conflict. *The Journal of Politics* 58:332-349.

Hays, Scott P., and Henry R. Glick. 1997. The Role of Agenda Setting in Policy Innovation: An Event History Analysis of Living-Will Laws. *American Politics Quarterly* 25:497-516.

Howlett, Michael, and M. Ramesh. 1995. *Studying Public Policy: Policy Cycles and Policy Subsystems*. Oxford, GB: Oxford University Press.

Jenkins-Smith, Hank, and Paul Sabatier. 1993. *Policy Change and Learning: An Advocacy Coalition Approach.* Boulder, CO: Westview Press.

Johnson, William. 1996. *Public Administration: Policy, Politics, and Practice.* Boston: McGraw-Hill.

Kincaid, John. 1980. *The Study of American Political Culture and its Subcultures*. Philadelphia: Publius.

Kingdon, John. 1995. *Agendas, Alternatives, and Public Policies*. NewYork: Harper-Collins College Publishers.

Klawitter, M., and Victor Flatt. 1998. The Effects of State and Local Antidiscrimination Policies for Sexual Orientation. *Journal of Policy Analysis and Management* 17: 658-686.

Klawitter, Marieka, and Brian Hammer. 1999. Spatial and Temporal Diffusion of Local Antidiscrimination Policies for Sexual Orientation. In *Gays and Lesbians in the Democratic Process*. New York: Columbia University Press.

Mintrom, Michael. 2000. *Policy Entrepreneurs and School Choice*. Washington, DC: Georgetown University Press.

Mintrom, Michael. 1994. *Policy Entrepreneurs In Theory and Practice: A Comparative State Analysis of the Rise of School Choice as a Policy Idea.* New York: University of New York at Stony Brook Press.

Mintrom, Michael. 1997. Policy Entrepreneurs and the Diffusion of Innovation. *American Journal of Political Science* 41:738-770.

Mohr, Lawrence. 1969. Determinants of Innovation in Organizations. *American Political Science Review* 63:111-126.

Mooney, Christopher, and Lee Mei-Hsien. 1995. Legislative Morality in the American States: The Case of Pre-Roe Abortion Regulations Reform. *American Journal of Political Science* 39:599-627.

National Gay and Lesbian Task Force. 1999. Legislating Equality: A Review of Laws Affecting Gay, Lesbian, Bisexual and Transgender People in the United States. Washington, DC: National Gay and Lesbian Task Force.

Rogers, Everett. 1995. *Diffusion of Innovation.* New York: The Free Press.

Sabatier, Paul. 1991. Toward Better Theories of the Policy Process. *PS: Political Science and Politics* 24:147-156.

Sabatier, Paul. 1999. *Theories of the Policy Process (Theoretical Lenses on Public Policy)*, ed. Sabatier. Boulder, CO: Westview Press.

Strickland, Ruth Ann, and Marica Lynn Whicker. 1992. Political and Socioeconomic Indicators of State Restrictiveness Toward Abortion. *Policy Studies Journal* 20: 598-617.

Wald, Kenneth D., James W. Button, and Barbara A. Rienzo. 1996. The Politics of Gay Rights in American Communities: Explaining Antidiscrimination Ordinances and Policies. *American Journal of Political Science* 40:1152-1178.

Walker, Jack. 1969. The Diffusion of Innovation Among the American States. *American Political Science Review* 63:880-899.

Walker, Jack. 1973. Comment: Problems in Research on the Diffusion of Policy Innovation. *American Political Science Review* 67:1186-1191.

Weart, Spencer. 1988. *Nuclear Fear: A History of Images*. Cambridge, MA: Harvard University Press.

Yamaguchi, Kazuo. 1991. *Event History Analysis.* Newbury Park, CA: Sage Publications.