Multiple Dimensions of Policy Adoption:
Regulation, Punishment, and Highway Safety Laws

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One of the central questions in the vast scholarly literature on state politics concerns the political, economic, and social factors responsible for policy variation. Why do state policies in such diverse areas as criminal justice, economic development, and health care differ? This paper applies the insights of previous research to policies designed to prevent drunk or impaired driving. Traffic safety has long been regarded as an important public health issue at the state level, but it has received comparatively limited attention from political scientists. It therefore represents a propitious venue in which to reexamine the impact of the forces that have been associated with policy adoption and to rethink the way scholars have approached the topic. More specifically, it suggests that policy adoption should be treated in a more comprehensive way that both examines multiple decisions simultaneously and incorporates incremental decisions more self-consciously. Such an approach promises to offer new insights about the dynamics of the adoption decision. In the specific issue area examined here, it suggests that the state policies can be attributed to a mix of political, economic, and demographic factors.

Policy Adoption: Insights and Oversights

Scholars have taken many approaches in their efforts to ascertain the factors responsible for policy variation at the state level. One of the liveliest and most expansive literatures in this tradition examines policy diffusion, the phenomenon in which the existence of an innovative policy in one jurisdiction affects the likelihood that it will be adopted elsewhere. Adoption is but one component of the diffusion process (Karch 2007), yet it is the one that has received by far the most scholarly attention. Although there are several important exceptions, most diffusion studies use event history analysis. The primary advantage of this approach, introduced in the

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pioneering research of Berry and Berry (1990), is that it permits the simultaneous examination of internal determinants and external influences on the timing of policy adoption.

Relying on event history analysis, scholars have traced policy variation to a wide range of economic and political factors. Slack resources, political alignments, legislative professionalism, and various other factors have been linked to the early adoption of innovative programs in several issue areas. This approach to the study of policy variation has contributed numerous insights to our understanding of state politics, in addition to shedding light on the impact of various diffusion mechanisms, yet it is important to acknowledge its limitations. One important limitation, in our opinion, is that this literature focuses on a type of policy decision that by no means exhausts the range of actions taken by state officials. In other words, the dependent variable examined in most diffusion studies is unnecessarily restrictive. This paper examines two types of policy decisions that tend to fall outside the standard approach.

First, state officials often consider several policy options simultaneously. In other words, once they determine that a certain societal condition merits political attention and a governmental response there is no foreordained course of action. Instead, decision-makers sift through a range of possibilities. These possibilities are not necessarily mutually exclusive, and state officials can adopt one, some, or all of the options they consider. In the language of Kingdon's (1995) classic study, lawmakers seeking to respond to developments in the problem stream can turn to any one of a number of options in the policy stream.

The history of policymaking at the state level provides several illustrative examples. At the turn of the twentieth century, state lawmakers considered several reforms associated with the Progressive movement. The reforms included different mechanisms of direct democracy as well as other changes to election administration (Hill and Klarner 2002). In the years leading up to

the landmark *Roe v. Wade* decision, officials in many states revisited and liberalized existing abortion statutes, selecting from a menu of potential options (Mooney and Lee 1995). During the past two decades, a similar dynamic has emerged in the realm of social policy. State officials considered and adopted numerous approaches to the regulation of the health insurance market (Stream 1999). Similarly, welfare reform granted state officials considerable discretion, which they used to adopt time limits, family caps, and other innovative policies (Soss et al. 2001). These diverse examples illustrate how state policymaking is often about the consideration of various alternatives that may be adopted either individually or collectively.

In contrast, event history analysis is typically employed to examine isolated episodes of policy adoption. Such studies are motivated by the questions of which states adopted a specific innovation and when they did so. The outcome of interest is dichotomous, focusing on the yes-no question of whether a policy was adopted in a given year. While such an approach might be appropriate in some contexts, the examples cited in the previous paragraph suggest that it offers, at best, an incomplete account of the adoption process. Even the innovation that has received the most intense scholarly scrutiny, the state lottery, encompasses questions about funding and other provisions that might prove politically relevant (Pierce and Miller 1999). Differences in program content, however, rarely receive sufficient scholarly attention.

Diffusion studies that examine variation in policy content tend to attribute it to conscious reinvention, a systematic process by which later adopters learn from earlier adopters' experiences (Allen and Clark 1981; Clark 1985; Rice and Rogers 1980). The primary hypothesis associated with the small literature on reinvention is that later adopters will enact more expensive versions of a policy due to officials' risk aversion and their tendency toward incremental policymaking. A new program that was highly controversial when it was first adopted might be

less contentious when other states adopter it later. Similarly, early adopters' experiences might provide administrative or political lessons that enable later adopters to expand on their efforts (Clark 1985). As a result, the reinvention process might lead later adopters to enact the most expansive versions of a given policy.

Despite its potential theoretical and empirical limitations, the notion of reinvention points to the second type of policy decision that tends to be overlooked by studies of policy adoption. In many cases policy change does not lead to the creation of something new, the decision examined in most diffusion studies. Instead it revisits an existing program. The chief insight of reinvention as a concept is that it highlights variation among adopters. By concentrating on this variation at the moment of adoption, however, the concept is unnecessarily restrictive. Officials can return to programs, expanding their reach by applying them to additional individuals and circumstances or limiting their application by moving in the opposite direction. These types of incremental shifts have received less scholarly attention, perhaps due to the methodological challenges involved in modeling them (Boehmke and Witmer 2004; Boehmke 2009).

In some ways it is surprising that the literature on policy variation at the state level pays limited attention to incremental policy change. Institutional accounts of national policymaking emphasize that the decentralization and fragmentation of political authority in the United States limit the possibility of comprehensive policy change (Steinmo and Watts 1995). The separation of powers, federalism, and other institutional features of the American political system mean that reformers have to clear a relatively large number of hurdles, while their opponents can preserve the status quo by blocking an initiative at any one of these veto points. Furthermore, the growing literature on policy feedback and path dependence suggests that certain types of policies can have political effects that reinforce their own stability (Pierson 2004). The beneficiaries of a

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program might mobilize to press for its extension or to protect it against attack. Their efforts can therefore be a source of programmatic stability.

The policy feedback literature suggests that investigating incremental policy change will not only provide scholars with a more comprehensive portrait of the types of decisions that state officials make. It may also illuminate the conditions under which political factors are most likely to be influential. A controversy surrounding the initial adoption of a policy may lead such factors as party politics and ideology to dominate the debate. If this initial controversy recedes over time, however, those factors might offer less explanatory leverage when officials revisit the policy and consider incremental changes. Instead the opinions of bureaucratic actors charged with enforcing the policy or the existence of certain societal conditions might be more influential. The following section explains why state "drunk driving" laws offer a compelling venue in which to assess these theoretical and empirical possibilities.

State Drunk Driving Laws: A Range of Policy Options

In the ten years from 2000 to 2009, over 400,000 people were killed in traffic crashes on American highways (National Highway Traffic Safety Administration 2011). About a third of these fatalities resulted from crashes involving at least one alcohol-impaired driver, and over 2.5 million people annually are injured in crashes involving an alcohol-impaired driver. The National Highway Traffic Safety Administration (NHTSA) defines an alcohol-impaired driver as having a blood alcohol concentration (BAC) of 0.08 or higher. An individual's BAC level is determined by the grams of alcohol per deciliter of blood (g/dL). For example, a BAC of 0.08 indicates 8 parts of alcohol per 10,000 parts of blood.

To address this societal condition, states have adopted a number of policies designed to deter alcohol-impaired driving. While policies such as the 21-year-old minimum legal drinking age and the .08 BAC have been adopted by all states at least partly in response to fiscal pressure from the federal government (Richardson and Houston 2009), there has been considerable variation in the adoption of other policies. One set of laws has been aimed at underage drinkers, such as false ID laws and zero tolerance laws with very low BAC levels for young drivers, but our focus is on two sets of policies: 1) laws seeking to reduce the likelihood of impairment prior to the act of driving for someone of any age, and 2) the set of policies used to punish an impaired driver who has been arrested by law enforcement.

A number of laws have been designed to reduce the likelihood of impaired driving, primarily by reducing alcohol consumption in various ways. For example, taxes on beer, wine, or liquor could reduce consumption (though somewhat imperfectly given price elasticity), and lower overall consumption could lead to lower impairment while driving. Another tool is the anti-consumption law that prohibits drivers from drinking alcohol while driving. One problem with the anti-consumption law is that law enforcement officers must observe the infraction, and there is great potential for a driver to claim that alcohol in the car is someone else's or that it was not being consumed at the moment. Therefore, public health advocates argued for open container laws that make it illegal to possess any open alcohol within the vehicle, which could reduce the opportunity for consumption while driving and add clarity for enforcement.

Beer taxes, anti-consumption laws, and open container laws may reduce the level of alcohol consumed prior to or during driving, but they do not speak directly to the issue of impairment. States have used a variety of legal means to determine impairment, but since the 1980s all states have had BAC laws to determine illegal impairment. While a few states had

higher levels, most states used a .10 BAC level during the 1980s and some well into the 1990s, but advocates began to push for a .08 level in the late 1980s. In addition, the federal government provided grant incentives for states to adopt the .08 level, and by the end of the 1990s about a third of the states had adopted a .08 BAC level. The congressional passage of TEA-21 in 1998, however, created much greater federal pressure as states would begin to lose increasing levels of highway funds after July 1, 2003 if a .08 law was not adopted. By 2005, all states were in compliance (Richardson and Houston 2009). In addition, some states have imposed additional penalties for "enhanced impairment" indicated by a high BAC, with the initial levels triggering such penalties ranging from .15 to .20 BAC.

The BAC level of a driver can be established with a blood test, but given the inconvenience and invasive nature of such a test it is typically not used except for in the case of severely or fatally injured drivers. Instead, the typical procedure is the use of a breath test after probable cause has been established through observation by an officer and performance of various dexterity and memory tasks by the driver. Over the last couple of decades, breathalyzers have been the primary means of enforcement for BAC laws, but states found that a number of drivers would simply refuse the test. Therefore, many states have passed implied consent laws that mandate that all drivers have given consent to such laws by obtaining a driver's license and that refusal to take a breath test is grounds for an automatic set of penalties that typically includes a license suspension ranging from three to about eighteen months.

Another law helping to implement the BAC laws is the administrative per se law. In states with such a law, a breath test revealing a BAC above the prescribed level (now .08 in all states) is grounds for a suspension or revocation of the driver's license for a set period of time immediately. The administrative per se license action is prior to conviction, independent of

conviction, and separate from any licensing penalty imposed in the sentence resulting from the conviction. Some states allow various ways to reduce the length of the license action, such as alcohol classes, rehabilitation or interlock devices installed in the car that prevent the car from starting if the driver's breath shows impairment.

Focusing attention on a different component of the process, states have also sought to reduce the probability of impairment by using dram shop laws that make drinking establishments potentially liable for crashes involving impaired patrons. By shifting some of the economic consequences of the negative externality of alcohol-related vehicle crashes onto drinking establishments, such laws may reduce consumption prior to driving.

In addition to these various policies seeking to deter impaired driving, states can use a number of sanctions after the arrest of an impaired driver. Most of these post-arrest sanctions involve license suspension, fines, and jail time (but can also include community service or the mandatory use of an interlock device on the vehicle). The implied consent and administrative per se laws typically have license actions associated with them. Convictions can also include license suspension or revocations (in addition to those that may have been imposed after arrest), but they also often include mandatory fines and jail time. Typically, the sanctions for repeat offenders are more punitive.

Data and Hypotheses

Why have states adopted distinctive policy approaches to drunk-driving prevention? Our analysis investigates the impact of several demographic, economic, and political factors. Some of them have been linked to state policymaking in general, whereas others seem particularly

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relevant in this specific policy arena. Our goal is to assess both whether these factors affect

policymaking and whether their impact varies across types of decisions. In other words, are the

same factors influential at the pre-punishment stage and the punishment stage? This distinction

is theoretically significant because it speaks to our effort to incorporate largely overlooked types

of decisions into the expansive literature on policy adoption at the state level.

Dependent Variables

Using the impaired driving deterrence policies described above, we created two groups of

dependent variables. Our first set of variables relate to the pre-punishment stage. We developed

an additive scale to include dummy variables for whether a state has an anti-consumption law, an

open container law, a dram shop law, a .10 BAC law, a .08 BAC law, a high BAC law, an

implied consent law, and/or an administrative per se license action (either suspension or

revocation). This "pre-punishment" scale theoretically ranges from zero to eight, but as Table 1

(our summary statistics table) shows, the observed range is from one to eight.

[Table 1 about here]

A higher beer tax could reduce consumption but could also have revenue purposes so we

left it out of the first pre-punishment measure. Our second scale includes a measure of the beer

tax by adding a one to the scale if the state is at or above the median value (in real terms) of all

state beer taxes in our sample. This measure loses some of the variation in beer taxes and the

levels triggering a high BAC law, but it also weighs them equally with the other laws.

Our third version of the pre-punishment scale reflects the variation in beer taxes and

different levels of a high BAC law. Using the scale without the dummies for high BAC or high

beer tax, our third pre-punishment scale reflects the addition of the different levels for high BAC

laws and beer taxes. High BAC laws range from .15 to .20, but many states have no such law so we must exercise caution in creating a scale. We assigned a state a zero if it had no law, a one if it had a .20 BAC or higher, a two for a .18 or .19 BAC, a three for a .16 or .17 BAC, and a four for a .15 BAC or lower for enhanced impairment punishment. For the beer tax, we calculated the beer tax in real dollars (using CPI-U with 1982-84=100) for the entire sample, and then we assigned a zero for the lowest quintile, a one for the second, two for the third, three for the fourth, and a four for the top quintile of beer taxes. Once the high BAC scale and the beer tax scale were added to the original pre-punishment scale (minus the dummies for each one), the theoretical range of the scale was from zero to fifteen and the observed range was from two to fourteen.

Our second set of variables relate to the punishment stage. We used the mandatory minimum imposed for five different types of punishment: the license actions associated with an implied consent refusal to take a breath test, the administrative license action imposed immediately upon failing a breath test, and the fines, jail time, and license action resulting from a conviction. To operationalize a scale, we first converted fines into real dollars (using CPI-U with 1982-1984=100). We then took the quintiles of the total sample for each of the five punishment categories, and we assigned a zero for the lowest quintile up to a four for the top quintile of that punishment category. In some cases, a particular value (such as 365 days for a license suspension) was used by so many states that the quintile was slightly bigger than 20% of the sample, but in general the data were divided into five similarly sized groups for each punishment category. The scales for each punishment type were then added to create a scale.

A further complication of the measurement for the punishment scale is that states can vary considerably in the severity of sanctions imposed for the first, second, and third offenses for

an individual. States are generally much tougher on repeat offenders. While the creation of scales based on quintiles for each punishment type somewhat masks these differences (as the toughest jail time for a first time offender is 7 days and the highest for a third offense is 720 days, but they are each coded as a four), we suspect that different factors could shape the adoption of punishment for first-time versus second-time and third-time offenders. Therefore, we calculate the scale separately for first-time offenders, second-time offenders, and third-time offenders. We then combine these scales into one overall punishment scale. One additional caveat is that we do not have data on third time offenses for the third time offender of the implied consent refusal category so the third offense scale has a smaller range.

The summary statistics for each of the scales are provided in Table 1. The theoretical range for the first and second offense scales is zero to 20, and the theoretical range for the third offense is from zero to 16. Finally, the overall punishment scale has a theoretical range from zero to 56, but the observed range is from zero to 48. The major source for all dependent variables was the annual *Digest of Impaired Driving and Selected Beverage Control Laws* (NHTSA, 1986-2006), but in some cases state websites were used for data verification.

Independent Variables

Our models examine four sets of factors, the first of which includes several demographic characteristics. Several attributes of the state population might be relevant in this policy context. The presence of mass transit options in states with relatively large urban populations, for example, might lower the political salience of drunk-driving regulations. The issue might resonate strongly, however, in rural states where such options are less widespread. Our models

include a measure of population density to account for this possibility (Census Bureau, 1986-2006).

State education levels might also influence policy outcomes because they might affect societal attitudes toward either government regulation in general or alcohol consumption specifically. Our models adopt the fairly standard convention of measuring state formal education levels as the percentage of the population with a bachelor's degree (Census Bureau, 1986-2006).

The age profile of a state, particularly the balance between youth and the aged, might be politically relevant. States with older populations might be less likely to adopt the regulations with which this paper is concerned. Predicting the impact of a relatively youthful population is more difficult. Younger individuals might oppose government intervention, but their lower levels of political participation mean that their preferences are less likely to resonate politically. On the other hand, politicians and the public might be more likely to identify drunk driving as a societal concern in states with younger populations. Our models include the proportions of the population age 65 or over and those between the ages of 15 and 24 to assess this demographic factor (Census Bureau, 1986-2006).

State economic conditions comprise a second set of factors with the potential to influence state policymaking. The relationship between state economic conditions and policy adoption patterns has been a long-standing concern among scholars of state politics (Dye 1966; Plotnick and Winters 1985; Walker 1969). When the economy turns downward, officials may be less likely to adopt regulatory policies, even those aimed at individual behavior such as drinking and driving. One exception may be beer taxes that could generate revenue during a recession so we may see a different pattern on the pre-punishment scale with and without the beer tax. We

expect a negative relationship between state unemployment rates and policy adoption (Bureau of Labor Statistics, 2011).

Unionization levels represent another economic characteristic that might be politically relevant. One must interpret their impact cautiously, as they may reflect the industrial mix of a given state or serve as a proxy for the representation of "working class" interests at the state capitol. Our models incorporate a measure of union density (Hirsch, Macpherson, and Vroman 2011).

Our models also include three other proxies for the state political context. The general ideological environment of a state is potentially important. Liberals and conservatives do not embrace policies with equal enthusiasm. The states possess distinct ideological environments, and programs are more likely to be adopted when they "fit" with a state's ideological background (Erikson, Wright, and McIver 1993). Ideological fit is a resource on which lawmakers can draw to overcome the barriers to policy adoption, and our models therefore include annual measures of citizen ideology devised by Berry et al. (1998). Although conservatives tend to be more skeptical of government regulation than liberals, that standard relationship might be reversed in the context of drunk-driving policy.

Partisan control of state government institutions has been linked to the enactment of various public policies (Roh and Haider-Markel 2003; Spill, Licari, and Ray 2001) and might also be relevant. Democrats tend to more enthusiastic about regulatory policies than Republicans, although that relationship might be reversed in this context. Our models incorporate a dichotomous variable indicating whether the governor is a Democrat as well as a measure of the percentage of seats in the lower house under Democratic control (Klarner 2003).

Finally, our models include a fourth set of factors that seem particularly relevant in the making of state impaired-driving policy. One might hypothesize that policy adoption is driven by problem severity and that policymakers' willingness to endorse a specific program might reflect the existence of a certain societal condition or problem. In other words, a policy is more likely to gain enactment when the conditions it seeks to address are important issues in that state. Where a problem is severe, policy change is likely. Where the problem is less severe, policy change is less likely. Officials are more likely to adopt a policy when they agree on the existence of a problem and on the need to use governmental action to address it (Nice 1994; Sapat 2004). As a measure of problem severity, our models include the number of alcohol-related fatalities per vehicle mile traveled. The fatality data is taken from the Fatal Accident Reporting System dataset maintained by NHTSA (2012), and the vehicle miles travelled data are derived from *Highway Statistics* (Federal Highway Administration 2012). Officials in states where this figure is relatively high might be more likely to view the adoption of the regulations examined here as more necessary.

In addition to the economic conditions mentioned earlier, it is also important to acknowledge that the production of alcoholic beverages is an important industry in several states. The relative importance of this sector is not simply an economic factor. It also affects interest group politics in a state. Breweries and others involved in this industry are likely to lobby against various regulations if they view them as a threat to their bottom lines. In order to examine this dynamic, our models include a measure of beer shipments per capita (Beer Institute, 1986-2006). This measure represents the relative economic and potential political influence of this industry across the states.

Results

Several factors appear to contribute to state-level policy variation at the pre-punishment stage. Table 2 presents the results of our empirical analysis for the pre-punishment policies (using the three different scales described earlier). States with more liberal residents are more likely to impose punitive policies. This relationship, which might suggest a greater tolerance for regulation among liberals, achieves conventional levels of statistical significance in two of our three models. Our partisanship results are mixed. The presence of a Democratic governor is associated with tougher policies at the pre-punishment stage in all three models and achieves statistical significance when the "full" scale is the outcome of interest. In contrast, all three models suggest a significant negative relationship between the percentage of the state lower house under Democratic control and the presence of more stringent policies at the pre-punishment stage. One might hypothesize that these divergent relationships imply that Democratic legislators and executives respond to distinct constituencies in this policy arena, but our data do not permit a systematic examination of this possibility. On the other hand, an economic interest in alcohol production has the expected negative relationship with tougher regulations at the pre-punishment phase. States with higher levels of beer shipments per capita, all else equal, are less likely to adopt stringent policies. This relationship is significant in two of our three models (and notably the two with the beer tax included) and may reflect the lobbying efforts of the producer community. The age profile of a state also seems to have an impact. States with higher proportions of both young people and the elderly are less likely to adopt tougher regulations, a pattern that is strong across all three of our models.

[Table 2 about here]

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Table 3 displays the results of our empirical analysis at the punishment stage. The four models correspond to our first punishment scale, second punishment scale, third punishment scale and full punishment scale, respectively. Our results are fairly consistent across the four different outcomes, and they resonate with many of the patterns described in the preceding paragraph.

[Table 3 about here]

The relationship between citizen ideology and policy outcomes appears to be weaker at this stage than it was at the pre-punishment stage. There is a positive relationship between citizen liberalism and the existence of punitive policies in three of our four models, but it achieves conventional levels of statistical significance only at the "second punishment" stage. The mixed and perplexing link between partisanship and policy outcomes that was described earlier appears again in Table 3. The presence of a Democratic governor has a significant positive effect on the stringency of state regulations in three models. States where Democrats hold a higher percentage of seats in the lower house, however, are significantly less likely to impose stringent policies in all four models. It is difficult to explain these cross-cutting effects.

As expected, states in which alcohol producers have a stronger presence are less likely to impose stringent regulations at the punishment stage, but this relationship achieves a conventional level of statistical significance only in one model. The age profile of the state also appears to influence policy outcomes, with the percentage of the population over age 65 having a significant negative impact in three models. In contrast, states with a relatively high percentage of young people are more likely to impose tougher punishments. Two other factors, neither of which had a systematic impact on pre-punishment stage, appear to influence state policymaking at the punishment stage. The first is population density, which has a significant negative impact

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in three models. This relationship suggests that relatively urban states, all else equal, are less likely to impose tough punishments. The second different result is the state unemployment rate, which has a significant positive effect in two models. This indicates that states are more likely to regulate individual behavior in tough times, which is contrary to our expectations.

In combination, the results presented in Tables 2 and 3 allow us to draw several tentative conclusions about the dynamics of policymaking in this issue area. First, as state officials decide whether and how to address the issue of impaired driving, problem severity does not seem to affect their decisions in a systematic way. In only one model is there a significant relationship between alcohol-related fatalities and the penalties imposed at the pre-punishment and punishment stages, and that particular model suggests that states with more fatalities are actually less likely to impose strict punishments. The absence of a systematic relationship might suggest that the punishments are a symbolic rather than substantive response to a perceived societal problem or, alternatively, that policymaking in this arena is driven by focusing events or anecdotes that generate substantial interest in regulation. Our data do not permit a systematic assessment of these hypotheses, but a case study approach might shed light on them.

Second, the state political environment seems to matter. Citizen liberalism is associated with stricter regulations at the pre-punishment and punishment stages, though this relationship is stronger at the former than the latter. This pattern seems to suggest that liberals are more tolerant of government regulations than conservatives, even when the regulations at issue can be classified as morality policies. Perhaps the most puzzling results presented in this section concern the effect of partisanship. At both stages, the presence of a Democratic governor is associated with stricter regulations yet a strong Democratic presence in the lower house is associated with a less stringent approach. These cross-cutting results seem to suggest that

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distinct concerns affect legislative and executive decision-making in this issue arena. Additional theorizing and empirical investigation into this possibility is certainly warranted.

Third, our results suggest that a state's economic profile is important. Union density does not have a systematic effect on policy stringency, but the presence of alcohol producers does. As expected, states in which alcohol producers have a strong presence are less likely to impose strict regulations at either the pre-punishment or the punishment stage. This relationship is particularly strong at the pre-punishment stage, though it is important to acknowledge that it does not achieve conventional levels of statistical significance in a model that does not include the state beer tax. Producers might lobby especially enthusiastically against strict regulations at the pre-punishment stage because they perceive themselves as having a stronger economic stake at preserving access to alcoholic beverages. Alternatively, they might be reluctant to lobby against stringent penalties at the punishment stage out of fear that it might be interpreted as a lack of concern about, or even an endorsement of, impaired driving. Case studies of individual corporations and their lobbying efforts might illuminate this issue.

Our fourth and final conclusion is that states' demographic characteristics affect policy outcomes, albeit in unusual and occasionally unpredictable ways. Formal education levels have a consistent negative effect on pre-punishment policy stringency but a consistent positive impact at the punishment stage. However, their influence does not achieve conventional levels of statistical significance in any of our models. Population density consistently seems to lead to less stringent outcomes, and its impact is significant at the punishment stage. State unemployment rates appear to have a mixed effect in this policy arena, though they have a significant positive effect on policy stringency toward second- and third-time offenders. Finally, the age profile of a state appears to matter. States in which the elderly make up a larger

proportion of the population are less likely to have stringent policies at both the pre-punishment and punishment stages. States in which young people make up a larger proportion of the population, in contrast, are less likely to have stringent policies at the pre-punishment stage but more likely to have them for first-time offenders at the punishment stage. We are reluctant to make any definitive causal claims based on these scattered results and are more inclined to treat these demographic characteristics as background conditions that correlate with policy outcomes.

Conclusion

The goals of this paper were to shed light on the determinants of state policies toward impaired driving and to make the case for a less restrictive approach to the study of policy adoption. In terms of the former objective, our empirical analysis highlights the impact of a state's political environment, economic profile, and demographic characteristics. Problem severity, in contrast, does not seem to affect the stringency of state regulations.

In terms of our second objective, this paper demonstrates the usefulness of moving beyond a simple yes-no conceptualization of policy decisions. Once state decision-makers decide to address a specific societal condition they often consider several options simultaneously, and our analysis of the pre-punishment stage illustrates the usefulness of modeling state policies accordingly. Similarly, state officials sometimes make incremental adjustments that apply existing policies to additional individuals or circumstances or that make gradual modifications to the status quo. The general trajectory of state policies in this issue area, including the ratcheting up of penalties for second- and third-time offenders, suggests that such changes are an important part of the adoption process. The results presented here do not suggest that the adoption of

incremental reforms differs fundamentally from the types of policy adoption decisions on which

scholars have tended to focus, but the more systematic inclusion of gradual adjustments in the

literature on state policymaking may generate new insights about the factors that influence state

decision-makers.

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Table 1. Summary Statistics

	Mean	Std Dev	Minimum	Maximum
Dependent Variables				
Pre-Punishment Scale	5.2	1.6	1	8
Pre-Scale with Tax	5.7	1.7	1	9
Pre-Scale Full Range	7	2.5	2	14
First Punishment Scale	7.1	3.6	0	17
Second Punishment Scale	10.8	4	0	20
Third Punishment Scale	7.2	3.4	0	16
Full Punishment Scale	25.1	9.9	0	48
Independent Variables				
Population Density	165.8	223	0.9	1113
College Education Percent	22.1	5.4	10.4	38.7
Young Adult (15-24) Percent	18.8	2	14.7	27.4
Population over 65	12.5	2	3.1	18.5
Unemployment	5.4	1.6	2.2	12.7
Union Density	13.8	6.2	2.3	30.3
Citizen Ideology	49	14.8	8.4	96
Democratic Governor	0.5	0.5	0	1
Democratic Percent in Lower Chamber	0.55	0.17	0.1	1
Beer Shipments Per Capita	74.5	12.4	39.3	127.6
Lagged Alcohol Related Fatalities	4.1	1.5	1.1	10.4

Table 2. Pre-Punishment Models

	(1) Pre-Punishment Scale	(2) Pre-Scale with Tax	(3) Pre-Scale Full Range
Population Density	-0.003	-0.001	-0.007
	(0.003)	(0.003)	(0.005)
College Education Percent	-0.002	-0.002	-0.044
	(0.018)	(0.019)	(0.028)
Young Adult (15-24) Percent	-0.087*	-0.102*	-0.062
	(0.038)	(0.041)	(0.062)
Population over 65	-0.344**	-0.290**	-0.574**
	(0.067)	(0.071)	(0.108)
Unemployment	-0.015	0.009	0.082
	(0.030)	(0.032)	(0.048)
Union Density	0.029	0.018	0.018
	(0.023)	(0.025)	(0.038)
Citizen Ideology	0.013*	0.008	0.025**
	(0.005)	(0.006)	(0.008)
Democratic Governor	0.048	0.055	0.233*
	(0.059)	(0.063)	(0.095)
Democratic Percent in Lower Chamber	-1.172**	-1.486**	-2.732**
	(0.395)	(0.423)	(0.639)
Beer Shipments Per Capita	-0.012	-0.018*	-0.027*
	(0.008)	(0.008)	(0.012)
Lagged Alcohol Related Fatalities	0.017	0.017	-0.009
	(0.041)	(0.044)	(0.067)
Constant	10.670**	11.366**	16.810**
	(1.745)	(1.868)	(2.821)
Observations	980	980	980
R-squared	0.675	0.615	0.582
Number of states	49	49	49

Standard errors in parentheses, ** p<0.01, * p<0.05
State and Year Fixed Effects Estimated but Not Reported

Table 3. Punishment Models

	(1) First Punishment Scale	(2) Second Punishment Scale	(3) Third Punishment Scale	(4) Full Punishment Scale
Population Density	-0.011*	-0.019**	-0.011	-0.041**
	(0.006)	(0.006)	(0.006)	(0.015)
College Education Percent	0.057	0.023	0.007	0.087
	(0.034)	(0.037)	(0.035)	(0.088)
Young Adult Percent	0.238**	0.120	-0.001	0.357
	(0.074)	(0.081)	(0.077)	(0.194)
Population over 65	-1.039**	-0.583**	-0.144	-1.766**
	(0.128)	(0.141)	(0.134)	(0.335)
Unemployment	-0.096	0.211**	0.122*	0.237
	(0.057)	(0.063)	(0.060)	(0.151)
Union Density	0.047	-0.040	-0.062	-0.055
	(0.045)	(0.049)	(0.047)	(0.118)
Citizen Ideology	-0.004	0.025*	0.011	0.032
	(0.010)	(0.011)	(0.010)	(0.026)
Democratic Governor	0.228*	0.253*	0.165	0.646*
	(0.113)	(0.124)	(0.118)	(0.295)
Democratic Percent in Lower Chamber	-2.536**	-3.553**	-4.236**	-10.324**
	(0.759)	(0.835)	(0.794)	(1.989)
Beer Shipments per capita	-0.017	-0.020	-0.031*	-0.068
	(0.015)	(0.016)	(0.015)	(0.039)
Lagged Alcohol Related Fatalities	0.099	0.064	-0.167*	-0.003
	(0.079)	(0.087)	(0.083)	(0.207)
Constant	16.083**	16.645**	13.694**	46.421**
	(3.353)	(3.688)	(3.507)	(8.790)
Observations	980	980	980	980
R-squared	0.323	0.428	0.398	0.461
Number of states	49	49	49	49

Standard errors in parentheses, ** $p<0.01$, * $p<0.05$
State and Year Fixed Effects Estimated but Not Reported