

# **Does Electoral Competition Deter Politicians From Adopting Good Policies?**

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June 24, 2022

This is a preliminary draft; please do not cite or circulate. We thank Fred Boehmke, Charlotte Cavaille, Rob Franzese, John Jackson, Jin Woo Kim, Shekinah Lightner, Brandon Nyhan, Kevin Quinn, Kenneth Lowande, and Charley Willison for their suggestions and advice, and Skyler Edinburg, Sujin Kim, and Charlie Weismann for their helpful research assistance.

Legislators have a range of responsibilities that they need to carry out once they are elected to office. They need to provide service to their constituents, such as helping people in their district or state deal with bureaucratic red tape. They need to oversee the activities of the executive and judicial branches. They need to work together with other members of their party to help achieve the party's goals. But perhaps most centrally, they are called on to make good policy, enacting laws that will provide widespread benefits.

Of course, legislators do not make policy in a vacuum, so factors other than whether a policy is beneficial are likely to influence their attempts to pass laws. One such factor is *policy need*. Legislators often pass laws in response to policy problems. When a societal problem worsens, and demands attention, legislators will be more likely to pass a law that addresses this problem. Thus, as policy need increases, we expect to find a higher probability that legislators will pass a law to address this need.

A second factor is *electoral competition*. Since most elected politicians will be interested in getting re-elected, and parties hope to gain or maintain majority control, any policy decision they make will be done with one eye turned toward upcoming elections. In particular, when elections are expected to be highly competitive, then fear of suffering electoral losses may cause legislators to shy away from passing policies that might be controversial, even if those policies respond to policy need and provide benefits to society that clearly exceed costs. In other words, politicians - individually and collectively - will consider not only the *policy* benefits and costs, but also the *political* benefits and costs. If a proposed new policy portends electoral costs, politicians will be less likely to pass it, even if it also promises societal benefits.

One feature of laws that can cause them to be controversial is the law's target population – that is, who will receive the law's benefits. If a legislature passes a policy that concentrates its

benefits on groups that are viewed favorably – veterans, say, or children, or senior citizens – then the public is likely to be supportive of both this policy and the legislators who enacted it. If, on the other hand, a proposed law confers benefits on a group that the public views unfavorably – known as a *noncongruent* policy, because the target population that receives the benefits is not a group the public wants to support – then politicians will be more hesitant to pass that law, since passage of such controversial laws might lead to negative electoral consequences.<sup>1</sup>

In this paper, we analyze whether policy need and electoral competition – independently and combined - influence the likelihood that legislatures will adopt controversial but beneficial policies. We do so by examining a specific policy, the adoption of syringe exchange laws (SELs), that is especially appropriate to examine. As we will discuss, these laws are widely viewed as good, or successful laws, in the sense that the benefits of these policies clearly outweigh the costs. However, the beneficiaries of SELs – mainly people who use illegal drugs intravenously – are generally viewed unfavorably by the public. Because SELs allocate benefits to non-sympathetic target populations, they might generate public antipathy. And if upcoming elections are likely to be closely contested, then politicians and parties might shy away from passing these laws, despite policy need, for fear of negative electoral consequences. More concisely, SELs are *effective but noncongruent* laws. For policy reasons, politicians will want to pass these laws; but for political reasons they might not.

Our analysis thus lets us examine the conditions under which politicians will pass effective noncongruent policies, ones that solve policy problems but create political headaches. We argue that both of the factors just discussed – policy need and electoral competition – will influence the adoption of effective noncongruent policies. We predict that they will do so

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<sup>1</sup> Furthermore, as we will note below, these consequences are especially likely to occur when the unfavorably viewed beneficiaries of the policy are more visible.

independently, with need and competitiveness each affecting the probability of adoption. But these factors will also matter in conjunction with each other, with more electoral competition diminishing the effect of policy need for controversial policies. Taken together, then, our analysis will examine whether the presence of electoral competition reduces the likelihood that politicians will enact needed but controversial policy reforms.

## **Literature Review**

Two prominent literatures in political science – policy design and policy diffusion – provide insights that we build on to identify and understand the factors that enable legislators to pass effective noncongruent policies.<sup>2</sup> More specifically, these literatures help explain how social construction affects policy adoption through electoral incentives. Our starting point is that both policy design theory and policy diffusion theory agree that electoral pressures contribute to congruent policy adoption and noncongruent policy hesitation. For example, Ingram, Schneider, and DeLeon (2007) argue from a policy design perspective that policymakers have strong electoral incentives to engineer policies in a manner that align with public perceptions of who is deserving of policy rewards and burdens, rather than punishing popular groups and rewarding the unpopular ones. The literature on policy diffusion theorizes that electoral calculations play a role in horizontal policy diffusion, noting that strategic policymakers enact the popular policies of neighboring states (Berry and Berry, 1990; Karch, 2008; May, 1992; Pacheco, 2012), as well as policy innovations with public support beyond their border states (Makse and Volden, 2011).

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<sup>2</sup> The literature on policy design examines the factors that influence the content of policies, while research on policy diffusion explores how and why policies spread horizontally across governments of the same level (e.g., state-state) and vertically across different levels of government (e.g., local-state).

Boushey (2016)'s innovative investigation into the diffusion of criminal justice policy marries these two related yet separated literatures. Applying policy design and policy diffusion theories, Boushey argues that policymakers are more likely to adopt congruent policies than noncongruent policies, particularly when electoral pressures are high and strategic policymakers are especially sensitive to public opinion. While he finds that states are more likely to adopt congruent criminal justice policies that afford benefits to advantaged groups or impose burdens on deviant populations in response to public concerns about national crime, he does not focus on why noncongruent policies diffuse and are adopted, albeit at a lower rate than congruent policies.

In addition to building on policy need and policy diffusion theories, as brought together by Boushey, our theory also draws on one other literature – research on the spread of good policies - to explain how the characteristics of a jurisdiction's internal political environment influence the adoption of a subset of noncongruent policies: effective controversial policy. Unlike other policies, effective noncongruent policymaking is simultaneously stimulated by evidence documenting that policy benefits outweigh policy costs and straddled by electoral disincentives tied to public perceptions that policies unjustly reward the undeserving or punish the worthy. A growing literature examines the political conditions influencing the diffusion of good policies. For example, Shipan and Volden (2021) identify three factors essential to the spread of good policies between states: visible experiments, sufficient time to learn, and favorable incentives and expertise. We extend this research by shifting focus to the internal political environment, particularly the within-state policy need and electoral pressures, that predict effective noncongruent policy adoption.

## **Background: Syringe Exchange Laws**

To examine the factors that explain why legislators sometimes adopt policies that are effective but noncongruent, but other times do not, we focus on the case of SELs.<sup>3</sup> These laws authorize the establishment and activities of syringe exchange programs (SEPs), which are locations where people who use injection drugs can dispose of used needles and obtain new sterile ones. States first began to adopt these programs in 1990, when Hawaii and Connecticut passed the first SELs. In addition to providing the aforementioned services regarding the disposal of dirty needles and the procurement of clean ones, these programs typically provide other public health services beyond syringe exchange, including substance use disorder treatment, overdose prevention services, infectious disease screening, and vaccination (Fernández-Viña et al., 2020).

The evidence supporting the public health benefits of SEPs is well established. Research demonstrates that SEPs neither increase drug use among current users nor increase the incidents of drug use among new users; nor do they stimulate increases in crime rates (Brooner et al., 1998; Fernandes et al., 2015). Through counseling, testing, and treatment for bloodborne illnesses, SEPs are a cost-effective strategy to reduce the spread of hepatitis, tuberculosis, and HIV and refer participants to substance use disorder treatment and overdose prevention measures (Brooner et al., 1998; Sawangjit, Khan, and Chaiyakunapruk, 2017; Platt, Minozzi, and Reed, 2017; Fernandes et al., 2015; Davis, 2018; Vlahov and Junge, 1998). SEPs are also credited with reducing the number of improperly discarded syringes (Fernandes et al., 2017; Sawangjit, Khan, and Chaiyakunapruk, 2017; Wenger et al., 2011; Tookes et al., 2012).

Recommendations and guidance from the Centers for Disease Control and Prevention and National HIV/AIDS Strategy have consistently included SEPs as an essential component of

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<sup>3</sup> Other examples of effective but noncongruent policies include providing permanent housing to people who are homeless (i.e., housing first policies), good Samaritan laws, and naloxone access laws.

a comprehensive strategy to prevent bloodborne disease transmission. (U.S. Department of Health and Human Services, Syringe Services Programs, 2019; Office of the President of the United States, 2010; Office of National AIDS Policy, 2020). Most recently, the Biden administration released a model law for states to expand SEPs (The White House Briefing Room, 2021). Yet many state and local governments have been hesitant to adopt SELs. As of 2019, 29 states had adopted a law that formally authorized SEPs. Much of the opposition toward SEL adoption lies in the stigma-generated false claims that SEPs encourage drug use and dissuade injection drug users from seeking treatment (Weinmeyer, 2016). Indeed, a 2021 lawsuit in California attempted to shut down an SEP using claims that these programs increase improper syringe waste (Bluth, 2021)

Thus, SEPs are a clear example of effective noncongruent policy. The evidence for their effectiveness is consistent and convincing. Because SEPs provide significant public health benefits at a low cost, they are a cost-effective public health tool. Yet SEPs remain controversial. And the reason for this controversy stems from the insights of policy design and policy diffusion regarding the ways in which beneficiaries of policy will be perceived. In the case of SEPs, the beneficiaries – those who inject drugs illegally – are viewed unsympathetically by the population, with large segments of the public opposing policies that reduce the risks of substance misuse by providing clean syringes to people who inject drugs.<sup>4</sup> SEPs, with this combination of being clearly effective, but also highly controversial because their beneficiaries are viewed unsympathetically, are therefore a paradigmatic case of an effective noncongruent policy. What

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<sup>4</sup> One study examined fourteen polls and found that support for these programs ranged from 29% to 66% (Vernick, Burris, and Strathdee, 2003). Consequently, we are not making the case that there is never support for these programs. However, most polls find that only a minority of respondents favor these programs. The study also found that results were highly sensitive to the wording of the poll questions (e.g., whether it included the phrase “drug addicts”) and were driven in part by the views of the organization sponsoring the poll.

we want to understand is why states sometimes are willing to pass these kinds of policies, but other times are not. And to analyze this we turn to policy need and electoral competition.

## **Theory**

Policies can be good because their benefits outweigh their costs, but at the same time controversial because they either afford benefits to unfavorably viewed populations or sanction perceived deserving groups. This type of policy – also known as *noncongruent* policy (Schneider and Ingram, 1993) because of the lack of congruence between what the public thinks of groups and whether those groups benefit from a policy – creates a unique context for policy adoption and diffusion: elected officials are aware of a policy's benefits but also sensitive to the electoral risks associated with passing controversial policies.

We argue that both policy need and electoral competition can affect the likelihood of adoption of good but controversial policies. We begin with policy need, which helps to provide a baseline for understanding whether a noncongruent policy will be adopted. Although sometimes legislators are thought of as single-minded seekers of re-election, politicians also seek to make policy (Fenno, 1978), to solve problems (Adler and Wilkerson, 2013), and indeed to pass laws that broadly benefit society (Arnold, 1990). Because time is a scarce resource, however, the goal of creating policy competes with other goals, including not just re-election, but also serving constituents, achieving power in Congress, working with the president, and so on (Hall, 1997). When there is little perceived need for legislators to pass policies addressing an issue, then they are likely to devote their time to other activities. But when the need for policy increases, politicians will be more likely to adopt new policies, as the increased need forces these policy issues to the front of the agenda.



Policy need thus captures the perceived necessity of a policy action to address an individual or social welfare problem. It is related to the size of the problem so that, for instance, the need for policy action related to homelessness increases as the rate of persons experiencing homelessness grows within a community (Willison, 2021). We argue that when policy need is low – that is, when the size and prominence of the targeted problem is small – policymakers are less concerned with a good policy’s documented benefits because the problem is not yet perceived as necessitating policy action. This is especially true for noncongruent policies, since although these policies promise real preventative benefits when policy need is low, they also come with political costs, in the sense that the public will object to the distribution of benefits to non-sympathetic groups. Thus, when policy need is low, policymakers will be less likely to adopt effective noncongruent policies because the targeted problem is not severe enough for the elected official to trade public benefits for electoral risk. As the targeted problem becomes more severe, and policy need increases, policymakers are more likely to adopt good policies even if they are controversial.

*Hypothesis 1:* Policy need increases the probability of adopting effective noncongruent policies.

An increase in policy need thus can make it more likely that legislators will adopt even politically unpopular policies, provided these policies promise good societal benefits. Another factor, electoral competition, works in the opposite direction. If a controversial policy awards benefits or sanctions in ways that misalign with popular stereotypes of who is deserving of policy rewards or punishments, then elected officials are likely to perceive a potential electoral risk to supporting this policy, even when the policy’s benefits outweigh its costs. However, if there is little expected competition – in particular, if there is little chance that a party that

currently controls the legislature is at risk of losing its majority status – then legislators will be willing to pass a controversial but beneficial policy. But when political competition is high, and there is a good chance that the upcoming election may be close and might even result in a change in party control, politicians will be more likely to shy away from controversial policies, even those that promise a net societal benefit. As a result, we anticipate that strategic policymakers will avoid passing controversial policies during years of high electoral competition.<sup>5</sup>

*Hypothesis 2:* Electoral competition will decrease the probability of adopting effective noncongruent policies.

Thus far, we have treated the two components of our argument, policy need and electoral competition, as independent. As policy need increases, politicians will be more likely to adopt policies that are controversial but good. Conversely, as electoral competition increases, politicians will be less likely to adopt these sorts of policies. In addition to these independent effects, we contend that the interaction between these two defining contextual features will affect the likelihood that a state will adopt effective noncongruent policies.

In particular, we argue that the level of electoral competition can modify the effect of policy need. Recall that as policy need increases, we expect to find an increased probability that legislators will adopt a good but controversial policy. They will see a problem, and they will respond with action. Yet there is a secondary, but important, aspect to policy need for effective noncongruent policies: as the need becomes more apparent, it draws more attention to the controversial problem – in the case we examine, the problem of illegal use of drugs – and thus policy need may heighten public dissatisfaction with a noncongruent policy. Put another way, the more prevalent and visible the problem, the greater the policy need; but also, the greater the

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<sup>5</sup> We note that Boushey (2016) found that electoral competition increased the likelihood of adopting noncongruent policies, although he does not provide a strong theoretical explanation for this finding (Boushey, 2016).

likelihood that the public's attention will be drawn to the noncongruent nature of the policy. Consequently, public officials may have greater electoral concerns with passing good, controversial, and needed policies than good, controversial, and unnecessary policies.

However, this electoral disincentive associated with policy need only matters when electoral competition is high. When electoral competition is low, public dissatisfaction is not likely to produce electoral harm to the incumbent majority party. It may win by a somewhat smaller margin than it otherwise would have, but it will still win. Yet as the expectation that the election will be competitive increases, the costs of increased public dissatisfaction may counteract the policy need. Increases in policy need will lead to an increased probability of adoption; but we expect to see a lower likelihood of adoption when electoral competition is high than when it is low, as the raised profile of the problem leads legislators to be more hesitant due to the perceived public dissatisfaction with policy adoption.

Stated somewhat differently, for every given level of policy need, we expect the probability of adoption to be greater when there is low competition than when there is high competition. This means that although the expected coefficient on policy need is positive, the expected coefficient on the interaction term is negative, indicating that increasing competition decreases the effect of policy need. Our third hypothesis captures this relationship:

*Hypothesis 3:* Electoral competition will decrease the positive effect of policy need on the adoption of good but controversial policies.

## **Data Collection and Measures**

To examine whether policy need and competitive elections affect the adoption of policies – more specifically, the adoption of effective noncongruent policies – we developed an original

longitudinal dataset of state laws regarding SEPs. We began by searching NexisUni for all state bills about SEPs, using a keyword search strategy consisting of the following search string: (Deliver! OR Distribu! OR Program! OR Exchange! OR Prescription!) AND (“syringe” OR “needle” OR “drug paraphernalia” OR “hypodermic device”) AND NOT Bovine.<sup>6</sup> For the set of bills that this search produced, we then used NexisUni’s category option as a filter to identify all bills that were enacted into law.<sup>7</sup> Next, we downloaded all state laws passed before December 31, 2019. Our final step was to then locate all law sections that mentioned syringes or needles in the text of the law to determine if the relevant section authorized SEPs. If the law was about the establishment or modification of these programs, we kept it; if not – for example, if it was a law about non-prescription sales of syringes through pharmacies – we discarded it.

This process allowed us to identify and include all state-level SELs that explicitly authorized SEPs.<sup>8</sup> Not all these SELs were the same, of course. The policies that we found through this search process differed in the extent to which they authorized SEPs. Some laws, for example, authorized pilot programs that would expire after a specified date or are limited geographically, whereas others created statewide programs that are authorized indefinitely. It is

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<sup>6</sup> This search was adapted from a legal review of syringe service program laws conducted by The Policy Surveillance Program at the Temple University Beasley School of Law (Temple University Beasley School of Law: Center for Public Health Law Research, 2019).

<sup>7</sup> In other words, we eliminated all bills that were introduced but then not passed into law. To do this, we used NexisUni’s filters for both public laws and enacted bills. The results from using these two filters was largely consistent. For any discrepancies in the identification of public laws and enacted bills (e.g., something was identified as a public law but not an enacted bills), we reviewed results for both policy categories to ensure the collection of all passed legislation that met our inclusion criteria.

<sup>8</sup> Since we are interested in how elected officials may be affected by concerns over the potential electoral costs of noncongruent policies, we do not include laws that implicitly authorize SEPs, as these laws are less likely to be associated with affording benefits to perceived deviant populations than policies that explicitly authorize syringe exchange. Frequently, this implicit authorization occurs through a state’s drug paraphernalia law or syringe prescription laws (Bramson et al., 2015). Relevant drug paraphernalia laws are policies that do not include or explicitly exclude syringes in the definition of drug paraphernalia (see SC Code § 44-53-110 (2012)), or state laws that do not prohibit the free distribution of drug paraphernalia, including syringes (see MI Comp L § 333.7455 (2014)) (Burris et al., 2002). Laws permitting non-prescription syringe sale (NPSS) exist in all states and often regulate the age and quantity of legal purchase and record keeping requirements. Regardless of state policy, individual stores and pharmacists may further restrict or ease NPSS (Zlotorzynska et al., 2018). Omitting these policies is typical of research on SEPs (Fernández-Viña et al., 2020).

important to note that several states, such as Florida and New Hampshire, passed multiple authorization policies during the three decades included in our study. While no state authorized, prohibited, and then re-authorized SEPs, several states extended the legality of syringe exchange by authorizing new counties or provider types and legalizing SEPs indefinitely.

To construct our dependent variable, we code *SEL* as 0 in the years in which the state did not adopt an SEL and 1 in the years in which the state adopted an SEL. Since several states adopted multiple SELs, a state is never dropped from the analysis, and states remain “at risk” of adopting an SEL throughout the study period. Because no state passed a law that explicitly authorized SEPs until Connecticut and Hawaii in 1990, our dataset begins in 1990.<sup>9</sup>

Our theory proposes that the likelihood of adopting an effective noncongruent policy like SELs will be a function of both electoral competition and policy need. To capture competitiveness, we create a measure called *Electoral Competition*, which we adapt from Parry et al. (2022).<sup>10</sup> This measure is a single year index composed of three parts: the proportion of Democrats in the state senate; the proportion of Democrats in the state house; and the proportion of the vote for the Democratic gubernatorial candidate (Parry et al., 2022).<sup>11</sup> Like other indices (e.g., the Ranney index), each score depicts more about the party environment in the state – for instance, the likelihood of party control switching – rather than the competitiveness of a single election (Ranney 1976). Since we are interested in how legislatures respond to electoral

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<sup>9</sup> Bramson et al. (2015) lists Oregon and Washington as explicitly authorizing syringe exchange in 1989 and 1988, respectively, but these state laws do not meet our inclusion criteria. In 1988, the first SEP was established in Tacoma, Washington. Although several local politicians, including the mayor and police chief supported the program, no state law was passed in 1988 or prior that explicitly authorized SEPs (Sherman and Purchase, 2001). The 1989 Oregon law exempted syringes from the state’s drug paraphernalia law, thereby not meeting our definition of explicit SEP authorization (Oliver, 1995). Although our SEL dataset begins in 1990, our analysis starts in 1991 due to data limitations with other measures.

<sup>10</sup> We obtained this information from Harvard Dataverse (<https://doi.org/10.15139/S3/CTWPFW>).

<sup>11</sup> In addition to the single year index, there are average indices at 4-, 6-, 8-, and 10-year intervals. While we present the results using the single year index here, sensitivity analyses reveal similar results using the average indices.

competition through policy adoption, as opposed to the behaviors of individual legislators (e.g., sponsorship, votes), we believe that this measure of collective electoral competition is better suited for our analysis than an index capturing competition between candidates (e.g., Holbrook and Van Dunk 1993).<sup>12</sup>

The index produces a score between 0 and 1 with scores below 0.5 indicating a relative advantage to Republicans, scores above 0.5 indicating an advantage to Democrats, and scores of 0.5 indicating no party advantage, implying significant competition between parties. We transformed their index so values of 0 indicate a lack of competition and values of 0.5 indicate the highest level of competition.<sup>13</sup> Put another way, our measure of *Electoral Competition* equals 0.00 when there is minimal competition between parties, and every unit increase in *Electoral Competition* indicates more competition relative to lower values. We predict this variable will be negatively associated with SEL adoption.

Our second theoretically important independent variable is policy need. Like previous scholarship, we conceptualize our SEL beneficiary population as people who use intravenous drugs illegally (Boushey, 2016). Because no measure exists that accurately and consistently captures the size of the intravenous drug using population in each state across time, we turn to a proxy variable to capture the size of this population and operationalize policy need using the

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<sup>12</sup> Parry et al., (2020) produced other indices of electoral competition generated using data on federal offices and elections, specifically the proportion of Democrats in a state's federal congressional delegation and the proportion of the state's popular vote for the Democratic candidate for president. Since we are interested in how electoral competition for state offices impacts adoption of noncongruent policy, we elect to use the index generated only using data on state elections and offices. However, as sensitivity analyses, we ran our analysis using the other forms of the index that incorporate national offices and find similar results.

<sup>13</sup> To do this we first took the absolute value of the difference between the score and 0.5, then repeated this process on the new scores to create a score running from 0 (no competition) to 0.5 (full competition). We acknowledge that our transformation eliminates important information on which party possessed the relative advantage. However, since we are interested in the effect of electoral competition, on the adoption of noncongruent policy, regardless of which party had the advantage, our transformation facilitates a better test of our hypotheses.

previous year's rate of drug deaths per 100,000 state residents (*Drug Deaths*).<sup>14</sup> Because a higher value of this variable indicates a greater need for government to pass a policy solution, we expect this variable to be associated with an increased likelihood of an SEL adoption.<sup>15</sup>

To obtain data on drug deaths, we analyzed the Centers for Disease Control and Prevention (CDC) WONDER Multiple Cause of Death Online database, which captures the cause of death data from death certificates of U.S. residents, including the primary underlying cause of death and up to twenty additional causes.<sup>16</sup> In alignment with the CDC (Rudd et al., 2016; Joshi, Weiser, and Warren-Mears, 2018; Seth et al., 2018) and existing research (Gomes et al., 2017; Tori, Larochelle, and Naimi, 2020; Kim, Morgan, and Nyhan, 2020), we define drug-related deaths as those with an underlying cause of death involving drug poisoning. We identify the cause of death using ICD-9 external cause codes for years 1990-1998 and ICD-10 multiple cause of death codes for 1999-2016.<sup>17</sup> To calculate the yearly rate of drug-related deaths per 100,000 state residents, we gathered data on yearly total state population size from CDC WONDER's Bridged Race Population Estimates. We calculated *Drug Deaths* by lagging the yearly rate of drug-related deaths per 100,000 by one year.

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<sup>14</sup> To define the perceived beneficiary population more precisely, we explored using the rate of opioid deaths per 100,000 persons instead of the drug death rate. Since the majority of SEP participants are opioid users – especially in recent years – we theorized that the visibility of people who use opioids is more significantly perceived as SEP beneficiaries compared to people who use any illegal drug. However, there are very few opioid deaths in some state-years in the first decade of our analysis, leading our data source to suppress these values, for anonymity purposes, in over 20 states before 1998. Consequently, given the instability in opioid death measure before 2000, we have decided to rely on the drug death rate, since it includes far fewer suppressed values (10 state-years between 1990-2016). Post-1998 the correlation between these two measures is quite high ( $r=.94$ ), giving us confidence in using the broader drug death measure.

<sup>15</sup> We also note that an increase in this variable might also have an opposite effect by raising the profile of the drug-using population, which in turn could heighten the noncongruence and make legislators more hesitant to adopt a policy.

<sup>16</sup> We obtained this information from <https://wonder.cdc.gov/>.

<sup>17</sup> See [Appendix A1](#) for a summary of our coding strategy and list of ICD-9 and ICD-10 codes. We emphasize, like previous research, that we do not observe any discontinuities in the number of drug poisonings after the switch from ICD-9 to ICD-10 in 1999, allowing us to bridge our *Drug Death* variable across ICDs (Kim, Morgan, and Nyhan, 2020). As a sensitivity analyses, we ran a test that included a binary measure coded as 0 for years using ICD-9 and 1 for years using ICD-10. The variable was insignificant and the effects on our variables of interests were nearly identical.

In addition to our variables measuring policy need and electoral competition, our argument requires that we examine the interaction of these two factors. Thus, the third theoretically significant variable is the interaction between *Drug Deaths\*Electoral Competition*. This interaction allows us to assess whether the presence of electoral competition diminishes the expected positive association between our policy need variable and the likelihood of adoption. We anticipate that the coefficient on *Drug Deaths\*Electoral Competition* will be negative, based on our hypothesis that for any given level of need, politicians will be less likely to adopt a policy that benefits unfavorably viewed beneficiaries as the electoral environment becomes more competitive.

Beyond our theoretical variables, we also need to control for other state-level factors that are likely to influence noncongruent policy adoption. To begin with, because subsequent adoptions might be a function of earlier adoptions, we control for previous adoptions. We do this by creating the variable *Previous Adoptions*, which is coded as 1 in all years after a state passed their first SEL and 0 otherwise.<sup>18</sup>

We also account for partisan control of the legislature and the governorship. In particular, Republicans are less likely to support government activism and broad public health measures like SELs. To take this pattern into account, we create *Gubernatorial Control* and *Legislature Control*. For the former, we include dummy variables for Democratic and for Independent governors; for the latter we include dummy variables for Democratic control of both chambers and for split control of the legislature. Since Republican control is the omitted (i.e., reference)

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<sup>18</sup> In additional analyses not presented here, we replaced *Previous Adoption* with a variable that was a counter of the number of prior years in which a state passed an SEL. The results using this aggregated version was very similar to that using *Previous Adoption*.



category for both the governorship and the legislature, and since Republicans are less likely to support SELs, we anticipate that the coefficients for the included categories will be positive.<sup>19</sup>

Another political factor that might influence adoption is the presence of an election during the calendar year. Legislatures might pass fewer laws during election years, due in part to the time pressures of campaigning. They may also be more sensitive to electoral competition when legislative elections are near. We create *Legislative Election*, which takes a value of 1 in election years and 0 in other years. We expect the coefficient on this variable to be negative, indicating that these policies are less likely to be adopted during election years.<sup>20</sup>

We also control for the possibility of state-to-state diffusion. Since states frequently respond to the behaviors of their neighbor states (Shipan and Volden, 2006; Gilardi, Shipan, and Wüest, 2021), we include *Neighbor* as the percentage of neighboring states that already adopted an SEL. We expect a positive coefficient on this variable, since states may be more likely to adopt SELs if they see that neighboring states have done so.

Daniel Elazar (1966) has categorized states based on their historical attitudes and beliefs about the responsibilities and functions of government. He identifies three distinct U.S. political cultures: moralistic, in which public officials are expected to positively contribute to society by prioritizing general welfare; individualistic, in which the primary role of government is to protect individual rights over the collective good; and traditionalist, in which governments are necessary to preserve existing racial and class hierarchies and other aspects of the traditional status quo. To capture *Political Culture*, we include dummy variables identifying states that are *Individualistic*

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<sup>19</sup> Including these variables means that we drop Nebraska from our analysis, given that its unicameral legislature is nonpartisan.

<sup>20</sup> We also note that a negative and significant coefficient could also be viewed as support for the idea that politicians will especially shy away from passing noncongruent policies during election years, as the provision of benefits to unsympathetic populations could become an issue in the election.

or *Traditional*, leaving *Moralistic* states as the reference category. We anticipate that moralistic states will be the most likely to adopt policies that benefit the general welfare, leading us to predict negative coefficients for traditional and individual states.

## Results

Because our dependent variable is equal to 1 when a state adopted an SEL in a given year and 0 otherwise, we use logit to analyze our data. Given that we have a time series, cross-sectional dataset, we also need to account for two features of the data. One is that observations across time within a state are not likely to be independent (Primo, Jacobsmeier, and Milyo 2007). To capture state dependence, we cluster standard errors by state. Second, to account for time dependence, we include variables that measure time, time-squared, and time-cubed (Carter and Signorino 2010).<sup>21</sup> Since coefficients in logit are not easily interpretable in the same way that OLS coefficients are, we present our results using odds ratios and marginal effects.<sup>22</sup> Odds ratios greater than one indicate an increased likelihood of an SEL being adopted due to that variable, while odds ratios less than one indicate a decreased likelihood.

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<sup>21</sup> Because our dependent variable is equal to 0 in approximately 95% of our observations, we have rare events data. Cook, Hays, and Franzese (2020) recommend the use of a penalized maximum likelihood approach in such cases, as it accounts for rare events and decreases the potential for obtaining inaccurate (and often inflated) estimates for predictors. When we re-estimated the models presented in this paper using Stata's penalized maximum likelihood estimator, *firthlogit*, the results were nearly identical to those we obtained using logit with clustering by state. Thus, we present these standard logit results in our paper.

<sup>22</sup> For a dichotomous independent variable, the odds ratio can be interpreted as the probability that the state adopted a policy in that year when the independent variable is equal to one, relative to the probability that it does so when the independent variable is equal to zero. For continuous variables, the odds ratio measures the relative probability in terms of a unit increase in the dependent variable.

**Table 1: Likelihood of Adopting a Syringe Exchange Law, 1991-2017<sup>23</sup>**

<b>Variables</b>	<b>OR</b>
Electoral Competition	4.006 (15.33)
Drug Deaths	1.054 (0.145)
Drug Deaths*Electoral Competition	0.989 (0.327)
Previous Adoptions	1.149 (0.614)
Legislature Control (Ref. Rep.)	
Democrat	2.090 (1.053)
Split	0.363 (0.237)
Gubernatorial Control (Ref. Rep.)	
Democrat	1.427 (0.435)
Independent	4.083** (2.558)
Legislative Election	1.193 (0.450)
Neighbor	0.853 (0.588)
Political Culture (Ref. Moral)	
Individual	1.396 (0.631)
Traditional	0.436* (0.213)
Time1	3.14*** (-1.02)
Time2	0.90*** (-0.02)
Time3	1.00*** (0.00)
Constant	0.00*** (0.00)
Observations	1,246
Pseudo-R2	0.16

Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Table 1 presents our main analysis.<sup>24</sup> We find no support for our first hypothesis, which predicted that an increase in electoral competition should be associated with a decreased probability of SEL adoption. The odds ratio for *Electoral Competition* is greater than one, rather than the predicted ratio of less than one. The measure is also insignificant, with the estimated

<sup>23</sup> In a sensitivity analysis, we drop the individual effect for electoral competition for two reasons: first, because the main effect is non-significant, and second, we were interested in testing if competition modifies need regardless of any independent effect of competition. The results are nearly identical with the exception of the interaction effect which is positive but near zero. In another sensitivity analysis, we add covariates for citizen ideology, legislative professionalism, and Good Samaritan Law. Again, the results are nearly identical.

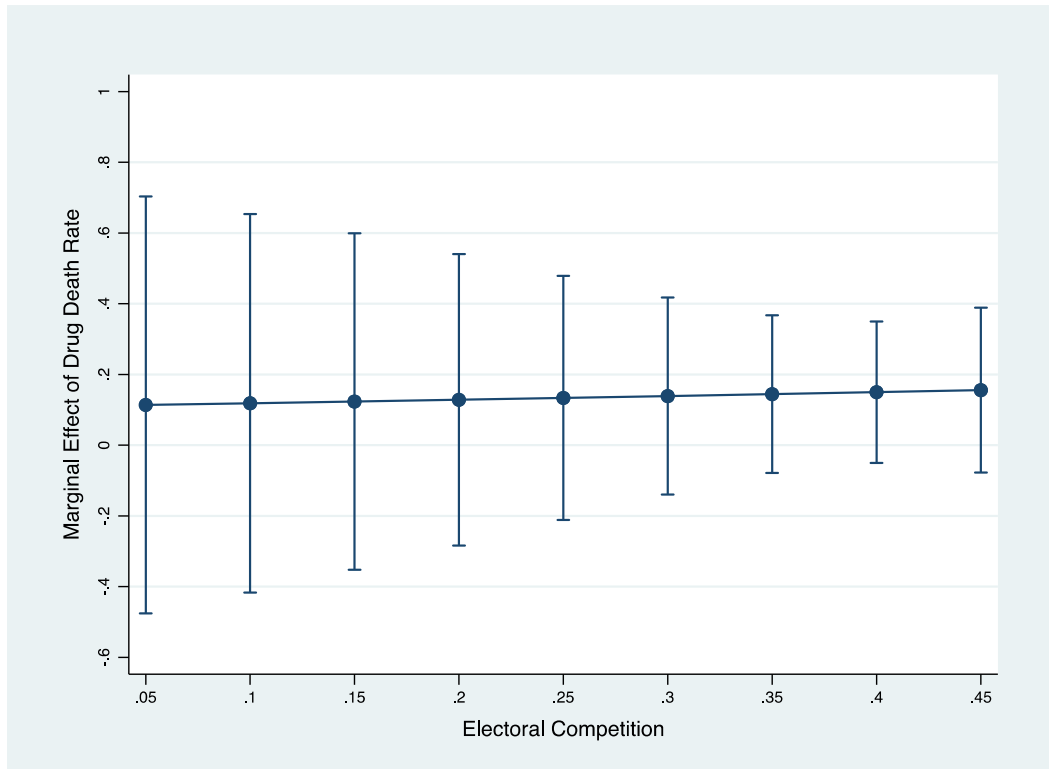
<sup>24</sup> All models exclude Nebraska from the analysis due to its unicameral state legislature and only include state-years when the legislature was in session.

coefficient and standard error producing a p-value of 0.89. Given the presence of the interaction term, this result indicates that when there are no drug deaths, electoral competition has no independent effect on the probability that a state will adopt an SEL.

There is limited support for our second hypothesis, which holds that increases in policy need will produce an increase in the probability of policy adoption. Because we interact *Drug Deaths* with *Electoral Competition*, the coefficient on *Drug Deaths* should be interpreted as the effect of policy need, as measured by the drug death rate, in the absence of electoral competition. Although the odds ratio is greater than one, suggesting, as predicted, that an increase in drug deaths is associated with an increased probability of adoption, this finding falls short of statistical significance (p= 0.70, two-tailed test).

We find minimal support for our third hypothesis. As predicted, the coefficient on the interaction term is less than zero, demonstrating that every unit increase in electoral competition diminishes the positive effect of policy need on policy adoption. In other words, the effect of policy need is greater under conditions of low levels of competition than high levels of competition, which aligns with our hypothesis (which predicted that increased electoral competition would make legislatures less likely to adopt a controversial policy). However, the odds ratio is nearly equal to 1, indicating that the effect of policy need barely varies by levels of electoral competition. Figure 2 demonstrates this, showing that the effect of policy need only slightly increases when there is more electoral competition and never reaches statistical significance.

**Figure 2: Marginal Effect of Drug Death Rate on Predicted Probability of SEL Adoption by Electoral Competition, 1991-2017<sup>25</sup>**



Taken together, then, the results in Table 1 provide minimal support for our hypotheses. Electoral competition does not produce the expected negative effect on policy adoption. We find that Drug Deaths has a positive marginal effect on the probability of SEL adoption across levels of electoral competition but falls short of statistical significance, which rejects our expectation that electoral competition would lessen the positive association between policy need and policy adoption.

<sup>25</sup> The drug death rate used in the model producing the marginal effects displayed in Figure 2 is per 1,000 state residents.

## **Extensions**

The results so far indicate support that is mixed, at best, for our argument. Yet perhaps the broad-based effects we have shown are masking important nuances. In this section we explore four additional factors that might affect the likelihood that an effective noncongruent policy will be adopted: race and partisanship, previous adoptions, and the expansiveness of the adoption.

We begin by exploring whether the factors impacting policy adoption depend on the race of drug death victims and partisan control of the state legislature. Many scholars suggest that the more treatment-oriented response to the opioid epidemic, in comparison to previous drug crises, reflects that the typical user of opioids is stereotyped as white (Keller 2017; Lopez 2017; McKenzie 2017; Peterson and Armour 2018; Shachar et al., 2020; Gollust and Miller 2020). For instance, Kim, Morgan, and Nyhan (2020) find that the white drug death rate was positively associated with congressional sponsorship of treatment-oriented drug-related bills, but the non-white drug death rate had no effect on policy adoption. Syringe exchange laws exemplify a harm reduction policy often grouped as a component of a treatment-oriented drug policy response. Consequently, we explore whether the adoption of these laws, and the effects of our primary variables measuring competition and need, depends on the race of victims.

Further, we suspect that partisan control may affect policy adoption. In the tests reported so far, we controlled for partisan control of the state legislature. However, it is possible that partisan control doesn't just have an independent effect, but instead that our key theoretical variables will behave differently, depending on whether Democrats or Republicans control the state legislature. Thus, in Figure 3, we restrict our sample to state-years when Democrats controlled the legislature, and first run our regression using the all drug death rates as our

measure of policy need, then the white drug death rate, then the non-white drug death rate.

Figure 4 presents the same three models but for state-years when Republicans controlled the legislature.

Figures 3 and 4, which present marginal effect estimates using these race-based measures by party in control of the state legislature, provide some intriguing findings.<sup>26</sup> To begin with Figure 3, we find that the marginal effect of the white drug death rate increases with competition when Democrats control the state legislature. That is, as more white people die from drug overdoses, then legislators become more likely to adopt SELs as elections become more competitive. This effect then is significant at higher levels of competition. At the same time, we observe that the marginal effect of the non-white drug death follows the same pattern of increasing with competition, but only slightly and never reaching statistical significance. In other words, we see evidence that Democratic state legislature are never responsive to non-white victims of drug overdoses regardless of electoral competition.

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<sup>26</sup> See Appendix Tables A2 and A3 for the full model specification with odds ratios. The drug death rate used in models producing marginal effects in Figures 3 and 4 is per 1,000 state residents.

**Figure 3: Marginal Effect of All, White, and Non-White Drug Death Rate on Predicted Probability of SEL Adoption by Electoral Competition for State-Years with Democratic Controlled Legislatures, 1991-2017**

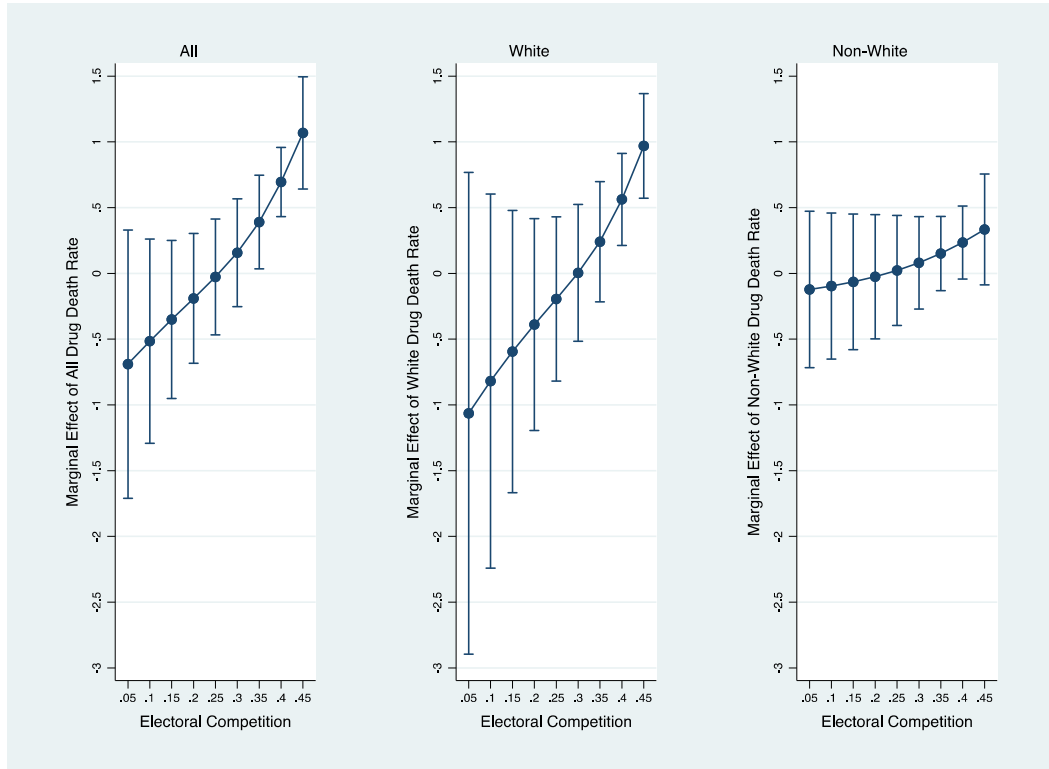
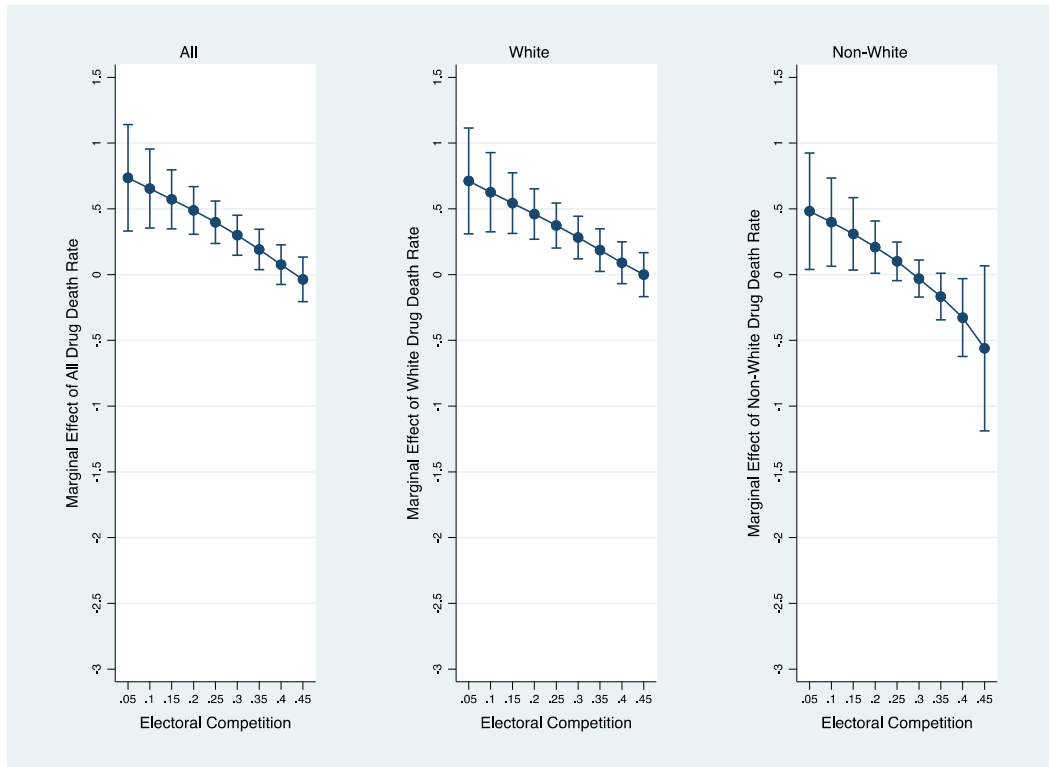


Figure 4 offers suggestive evidence that the pattern observed in Figure 3 reverses when Republicans are in control of the state legislature. In line with our hypotheses, we see that the white drug death rate is associated with an increased probability of adoption when electoral competition is low but not when it is high. Thus, for the first time, we find that *Electoral Competition* modifies the effect of *White Drug Deaths* in the expected direction: electoral competition diminishes the positive effect of white drug deaths on policy adoption. Meanwhile, we see that policy need as measured by the non-white drug death rate also has a significant effect on policy adoption at low levels of electoral competition that diminishes as electoral competition increases. However, unlike the marginal effect of the white drug death rate, which never



becomes negative, *Non-White Drug Deaths* decreases the predicted probability of SEL adoption for medium and high levels of competition, though this negative effect is not significant.

**Figure 4: Marginal Effect of All, White, and Non-White Drug Death Rate on Predicted Probability of SEL Adoption by Electoral Competition for State-Years with Republican Controlled Legislatures, 1991-2017**



Thus, the effect of policy need on adoption depends on electoral competition, race, and partisanship. When Democrats control the state legislature, the results conflict with our hypotheses. We find that heightened electoral competition increases the positive effect of the white and non-white drug death rate on policy adoption, but only reaches significance for the white drug death rate. In contrast, our findings for Republican state legislatures align with our expectations. When Republicans control the legislature, increased competition diminishes the positive effect of policy need on SEL adoption for both the white and non-white drug death rate.

In our next extension, we controlled for previous adoptions. It is possible, that there is a very different data generating process for states that had no previous adoptions than for states that did have previous adoptions and were now extending their initial policies; and simply including a variable in the regression to account for previous adoptions does not capture this possibility. Hence, we re-ran our tests from Table 1, but split the sample based on whether the state had previously adopted any SEL.

Appendix Figure 4 demonstrate that for first adoptions, the marginal effect of *Drug Deaths* is positive across all levels of electoral competition but diminishes as competition increases. In contrast, the marginal effect of the drug death rate on subsequent adoptions is negative at low levels and positive at high levels of competition. Not surprisingly, then, we find somewhat different adoption patterns based on whether a legislator had already adopted a SEL, although in neither case do the effects reach statistical significance.

Finally, we ran our tests using an alternative dependent variable. So far we have been designating the adoption of any SEL as a 1. However, some SELs are very minor or limited in scope or scale. They might just introduce a pilot program in a specific city, for example, or place a short time limit on how long the program can last, or allow for an emergency SEL. As a final test, we therefore allowed our dependent variable to take on a value of 1 when a state adopted an *expansive* SEL. SELs were categorized as expansive if the SEL did *not* authorize one of the following: a pilot program, a temporary program in response to a declared public health emergency, or limited SEP establishment to a small number of localities. The results are presented in Appendix 5. For expansive policies, the positive effect of *Drug Deaths* is positive when electoral competition is high and negative when it is low, though the effects never reach

statistical significance, which is similar to the results reported for subsequent policy adoptions. There appears to be no relationship between policy need and limited SEL adoption.

## **Discussion**

Politicians regularly are asked to make difficult policy decisions. One such decision occurs when politicians are considering a policy that they know is effective, in the sense that it will do much more good than harm, but that they also know may be controversial, in that the public is likely to react negatively to the creation of such a policy. In other words, the policy option promises clear *policy* benefits but is also likely to create *political* costs.

What do politicians do when faced with such considerations? A starting point has to do with the level of policy need – that is, how much of a need is there for this policy. As policy need increases, the likelihood that politicians will adopt the policy should go up. However, that’s just the start of the story. The presence of electoral competition adds another factor to their decision. We expect that when electoral competition is high, in the sense that the party in control of the legislature is worried about losing its majority status, then legislators will become risk averse about adopting controversial policies. This in turn will modify the effect of policy need, with competitive elections causing a decrease in the probability of adoption for every level of policy need.

We have contended that SELs are an ideal arena in which to test this argument, and to assess whether the presence of electoral competition makes it less likely that politicians will adopt needed but potentially controversial policies. It is a policy where the support for its effectiveness is strong and consistent. But it also is a policy in which the intended beneficiaries – mainly people who use illegal drugs intravenously – are held in low esteem by the public. In other words, it is an effective noncongruent policy, one that, if passed, will create positive policy

benefits, but also will likely generate negative political repercussions. And these negative political consequences will loom especially large when elections are competitive, and the majority party is threatened with the loss of its majority status.

Our results provide little support for this theory. We do find some evidence that policy need is associated with an increase in the likelihood that a legislature will adopt an SEL. However, our results also show that electoral competition does not strengthen or weaken this effect. We find, for example, that the marginal effect of policy need on the predicted probability of adoption is positive at all levels of electoral competition, but counter to our argument, it never reaches significance.

In light of the lack of support for our findings, we intend on pursuing four courses of action. First, we have framed the discussion and analysis in terms of policy need and political competition. A related but different angle would be to consider adoptions in terms of pandering. Various studies of political pandering have indicated that under some conditions, politicians will pander to the public, but under others they will not (e.g., Canes-Wrone, Herron, and Schotts 2001). Furthermore, the option to pander can produce non-linearities in terms of policy adoptions (Canes-Wrone and Schotts 2004). In our case, pandering could consist of avoiding adoption of SELs when both political competition is high and low but willingness to adopt policies at mid-levels of competition. More generally, we plan to consider other ways in which pandering might affect the pattern of SEL adoptions.

A second point is related. We have assumed throughout this analysis that SELs are an example of a noncongruent policy. We believe that this is true, generally, and public opinion polls generally support this view. However, it is a jump from that to our implicit assumption that the level of noncongruence is constant over time. Ideally, we would include ways of capturing

ebbs and flows in terms of noncongruence over time and across states, although how to do so in not obvious.<sup>27</sup>

An intriguing finding concerns partisan differences in the effect competition exerts on the relationship between policy need and adoption, which brings us to our third point. For Democrats, policy need becomes positive and increases in magnitude as elections become more competitive, so much so the marginal effect of policy need on adoption is significant at high levels of competition. On the other hand, as is shown in Figure 4, the positive effect of policy need decreases and becomes insignificant as competition increases for Republican controlled state legislatures, aligning with our original expectation that electoral competition would lessen the positive association between policy need and policy adoption.

This finding ties in again with the assumption that SELs are always noncongruent. An alternative is that the congruency of SELs depends on perceptions of the population needing benefits. For Democrats, SELs may afford benefits to a population perceived as deserving of policy rewards, and legislators would be more likely to respond to this policy need to increase their reelection chances when electoral competition is high. In contrast, Republicans view the policy as non-congruent, and electoral competition will decrease the positive effect of policy need. While our analysis as it stands cannot test these expectations, these predictions align with the findings depicted in Figures 3 and 4.

Finally, we observe that both Democratic and Republican controlled legislatures are more responsive to the white drug death rate than the non-white drug death rate. We observe the positive effect of policy need at high-levels of competition for Democrats only when there is

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<sup>27</sup> We searched for newspaper articles that discuss whether politicians think about SELs as a good or a bad policy. We also gathered public opinion polls that ask participants about their thoughts on SELs. Our initial review suggests that there is a very small number of newspaper articles and polls that examine SELs.

need among whites. While both the white and non-white drug death rate exert a positive effect on adoption when competition is low for Republican controlled legislature, the magnitude of the white drug death rate (0.71,  $p = 0.001$ ) is greater than the non-white rate (0.48,  $p = 0.03$ ).

This finding aligns with other analyses demonstrating that white populations are perceived as more deserving of policy benefits than non-white groups and that this discrimination exists in legislative support for drug policy (Glanton 2017; Kim, Morgan, and Nyhan 2020; King 2017; Newkirk 2017; Schneider and Ingram 2005). Consequently, it is possible that SELs may not be a noncongruent policy, or at least are less of a noncongruent policy, when the population needing benefits is white. Put another way, SELs afford rewards to a population seen as more deserving when that group is white and seen as undeserving when that group is non-white.

Going forward we plan to explore, and hopefully disentangle, the roles of pandering, congruence, partisanship, and race, along with several additional aspects. We look forward to hearing your thoughts on these potential expansions.

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## Appendix

**Table A1: ICD-9 and ICD-10 codes used to identify drug poisonings in CDC WONDER**

<b>Category</b>	<b>ICD-9</b>	<b>ICD-10</b>
Drug Poisoning	E850–E858, E950.0–E950.5, E962.0, or E980.0–E980.5	X40, X41, X42, X43, X44, X60, X61, X62, X63, X64, X85, Y10, Y11, Y12, Y13, Y14

We adapt the procedure defined by Kim, Morgan, and Nyhan (2020) to identify drug-related deaths. Using ICD-10, we define *drug deaths* as those with an underlying cause of death involving drug poisoning. In addition to Kim, Morgan, and Nyhan (2020), this operational form using ICD-10 follows the procedures of the CDC (Rudd et al., 2016; Joshi, Weiser, and Warren-Mears, 2018; Seth et al., 2018) and other research (Gomes et al., 2017; Tori, Laroche, and Naimi). For ICD-9, we rely on external cause of death codes, as CDC WONDER classifies deaths due to injuries and poisonings that occurred between 1979-1998 using external cause codes (E800-E999) rather than diagnosis codes (800-999) (Warner et al., 2011).

**Table A2: Likelihood of Adopting a Syringe Exchange Law for Democratic Controlled  
State Legislatures, 1991-2017**

<b>Variables</b>	<b>OR</b>		
Electoral Competition	0.000* (0.005)	0.000* (0.001)	1.540 (4.900)
Drug Deaths			
All	0.765* (0.122)		
White		0.714* (0.146)	
Non-White			0.936 (0.146)
Drug Deaths*Electoral Competition			
All	2.824*** (1.104)		
White		3.080** (1.438)	
Non-White			1.340 (0.543)
Previous Adoptions	0.695 (0.357)	0.726 (0.377)	0.928 (0.557)
Gubernatorial Control (Ref. Rep.)			
Democrat	1.271 (0.380)	1.289 (0.393)	1.217 (0.411)
Independent	11.17*** (4.762)	12.57*** (5.545)	5.598*** (2.681)
Legislative Election	1.199 (0.626)	1.200 (0.619)	1.042 (0.548)
Neighbor	0.780 (0.562)	0.720 (0.510)	1.021 (0.768)
Political Culture (Ref. Moral)			
Individual	2.088 (1.285)	2.086 (1.266)	2.036 (1.333)
Traditional	0.049*** (0.045)	0.046*** (0.042)	0.096** (0.100)
Time1	1.758** (0.496)	1.870** (0.512)	1.692*(0.500)
Time2	0.949** (0.020)	0.946*** (0.020)	0.952** (0.020)
Time3	1.001** (0.001)	1.001*** (0.001)	1.001** (0.001)
Constant	0.091 (0.154)	0.170 (0.364)	0.010** (0.018)
Observations	511	511	511
Pseudo-R2	0.209	0.213	0.174

Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

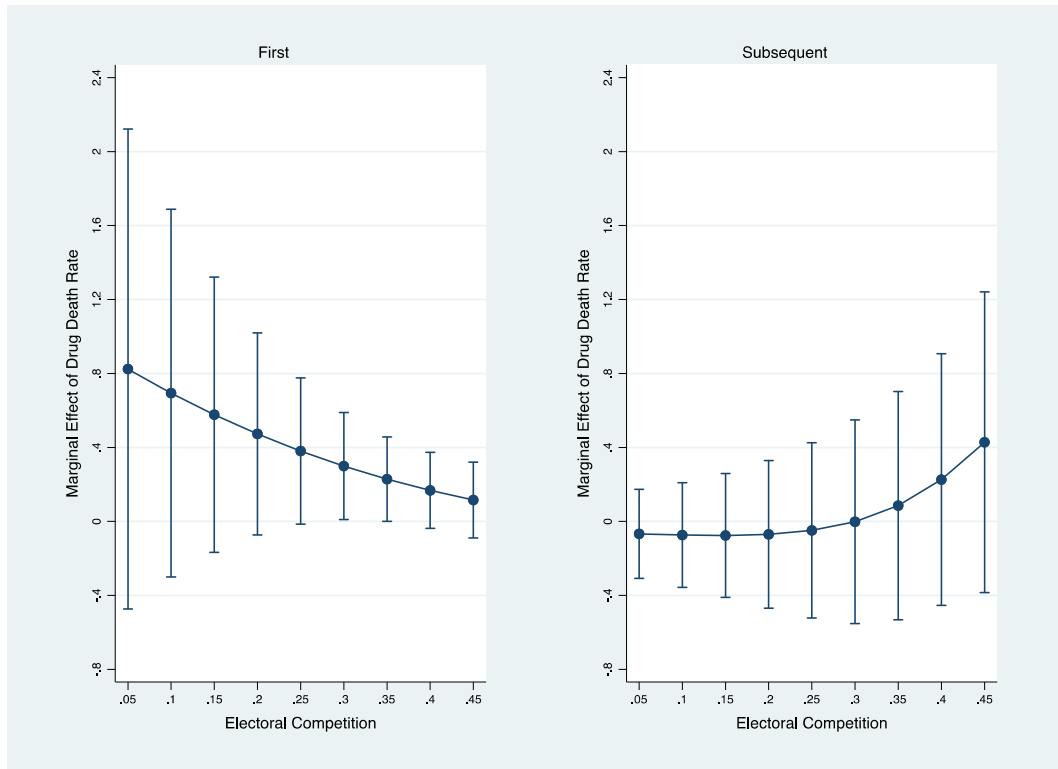


**Table A3: Likelihood of Adopting a Syringe Exchange Law for Republican Controlled  
State Legislatures, 1991-2017**

<b>Variables</b>	<b>OR</b>		
Electoral Competition	3.392e+06 (3.161e+07)	164,160 (1.457e+06)	4.165e+06** (3.057e+07)
Drug Deaths			
All	1.565*** (0.266)		
White		1.449** (0.217)	
Non-White			1.463*** (0.190)
Drug Deaths*Electoral Competition			
All	0.356** (0.147)		
White		0.438** (0.159)	
Non-White			0.267*** (0.112)
Previous Adoptions	0.848 (0.632)	0.827 (0.613)	0.442 (0.372)
Gubernatorial Control (Ref. Rep.)			
Democrat	2.741 (1.990)	2.784 (2.042)	2.580 (2.060)
Independent	-	-	-
Legislative Election	2.461 (2.526)	2.500 (2.590)	2.116 (1.978)
Neighbor	0.309 (0.574)	0.280 (0.524)	0.306 (0.403)
Political Culture (Ref. Moral)			
Individual	0.488 (0.477)	0.474 (0.466)	1.726 (2.102)
Traditional	0.473 (0.279)	0.394 (0.244)	0.420 (0.322)
Time1	5.065* (4.510)	5.332* (4.849)	5.772** (4.651)
Time2	0.869** (0.060)	0.865** (0.061)	0.859** (0.056)
Time3	1.003** (0.002)	1.003** (0.002)	1.004*** (0.001)
Constant			
Observations	469	469	469
Pseudo-R2	0.353	0.350	0.392

Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

**Figure A4: Marginal Effect of Drug Death Rate on Predicted Probability of First vs. Subsequent SEL Adoption by Electoral Competition**



**Figure A5: Marginal Effect of Drug Death Rate on Predicted Probability of Limited vs. Expansive SEL Adoption by Electoral Competition**

