Investigating the Politics and Content of U.S. State Artificial Intelligence Legislation

Policy Innovation or Politics-as-Usual?

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April 25, 2023

Abstract

The rapid emergence of artificial intelligence (AI) technology and its application by businesses has created a potential need for governmental regulation. While the federal government of the United States has largely sidestepped the issue of crafting law dictating limitations and expectations regarding the use of AI technology, U.S. state legislatures have begun to take the lead in this area. Nonetheless, we know very little about how state legislatures have approached the design, pursuit, and adoption of AI policy and whether traditional political fault lines have manifested themselves

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in the AI issue area. Here, we gather data on the state-level adoption of AI policy, as well as roll call voting on AI bills (classified on the basis of consumer protection versus economic development), by state legislatures and analyze the political economy of AI legislation. We find that rising unemployment is negatively associated with a state's AI policymaking. With respect to individual-legislator support, we find that Democrats are more likely to support bills establishing consumer protection requirements on AI usage. The results suggest that employment concerns loom large with AI and that traditional political fault lines may be establishing themselves in this area.

Introduction

The presence and increasing utilization of artificial intelligence (AI) technology has the potential to transform the global economy, systems of international security, and even person to person interaction. However, in doing so, it undoubtedly creates challenges for governance. Concerns about how to regulate the use of AI technology by businesses, as well as how to manage the implications of the growth of AI on employment, will no doubt occupy the attention of policymakers around the world in the years moving forward.

As one of the world's largest economies and the home to a key wellspring of AI innovation in the Silicon Valley, the United States will arguably be a testing ground for emerging ideas about constructing policies and a regulatory regime centered on addressing the role of AI technology in the everyday life of the public. Given the potential for AI to influence international trade and security, much of the attention on AI policy-making in the United States, particularly in the future, will focus on the federal government. Particularly given its clear influence on interstate commerce, it is uncontroversial to assume that the federal government will bring its vast resources to bear on developing and adopting a comprehensive AI regulatory strategy in some form in the years to come. At present, however, no such plan—or even dominant set of ideas—exists. As one major law firm, Alston

and Bird, puts it "there is no comprehensive federal legislation on AI in the United States" (*AI Regulation in the U.S.: What's Coming and What Companies Need to Do in 2023*, 2022); this is a point reiterated in *New York Times*: "Washington has largely been hands off on A.I. rules" (Sorkin, Mattu, Warner, de la Merced, Hirsch and Livni, 2023).

Despite federal inaction, U.S. state governments have stepped into this void and developed their own AI policy agendas over the better part of the last five years. State-level AI policy-making has come from regionally and ideologically heterogeneous source states (both California and Mississippi, for example, have pursued AI policy-making attempts), may form the foundation upon which future federal-level AI regulatory policy is built, and arguably represents the best example of current attempts to regulate AI applications in the United States. More broadly, as recent research has underscored, there is new evidence to suggest that the U.S. states indeed function today as "laboratories of democracy," in generating policy agendas for pursuit at the federal level (Garlick, 2023), Thus, analyzing the nature of state-level AI policy, in terms of which states have pursued AI policy-making, why those states pursued AI policy-making, and how the content of AI policy initiatives has differed across the states, can go a long way toward helping us understand how American AI policy will develop in the years ahead.

In an era of hyperpartisanship and ubiquitous campaigning and electoral competition, however, the emergence of AI is likely to do more politically than generate a new policy area. Indeed, as AI grows to affect the lives of everyday Americans and elites alike, parties may well search for features of AI policymaking that could reinforce party brands and contribute to party competition. As a result, understanding the eventual character of U.S. AI regulation will require an account of how features of AI policy will map onto existing political cleavages. Given the multifaceted nature of AI, it is unclear *ex ante* which aspects of AI regulation will garner the most intense political conflict.

In this article, we offer an empirical first step in understanding these political and policymaking dynamics, with a detailed analysis of attempts across the fifty U.S. states to pursue AI legislation since 2018. At the state level, we trace the adoption of AI legislation across the U.S. states and seek to understand whether prominent economic, political, temporal, and diffusion-related factors have explained the rise of state-level AI policy-making. In order to better understand nascent political dynamics, we also classify state-level AI legislation (including legislation that has been adopted as well legislation that has not) based on whether it deals with consumer protection or economic development. In doing so, we analyze individual legislator roll call voting data on each kind of AI bill, and we investigate whether individual-level factors such as ideology and partisan affiliation influence support for each type of AI legislation. In tandem, the state adoption analysis and the legislator support analysis give us purchase on the factors most associated with both the adoption of an AI policy regime and how the content of AI policy-making attempts can differ based on political characteristics.

Ultimately, in terms of adoption, we find evidence of an association between unemployment and a reduced likelihood of states establishing AI policy regimes, suggesting that state governments are concerned that their attempts to develop AI policy may be perceived as being inattentive to human employment levels. At the same time, we find that state governments are more likely to establish AI policy regimes if state government is controlled by one party, suggesting that AI policy regimes may not necessarily be bipartisan in character. At the legislator level, we find some evidence that Democrats are more likely than Republicans to support consumer-protection-oriented AI policy while non-consumer protection-oriented AI policy (which essentially is geared toward economic development) lacks such partisan dynamics. Such legislation is, however, more likely to garner support in wealthier states. Together, these results suggest that although AI policy is not fully polarized by any means, traditional partisan preferences might be man-

ifesting themselves regarding consumer protection specifically. Still, economic factors remain important for understanding policymaking dynamics, and that poorer states are not necessarily trying to catch up with wealthier peers through the passage of AI policy. We proceed as follows. First, we review literature on AI and regulation and then discuss the politics of AI. We then summarize state legislative attempts to regulate AI. Thereafter, we introduce our state adoption and legislator voting analyses and discuss their findings. We conclude by summarizing our findings and offering some thoughts on next steps for understanding the politics and policymaking associated with artificial intelligence.

Reviewing the Emergence of AI Regulation

AI is expected to contribute approximately 15 trillion dollars to the global economy by 2030 (Insights, 2022). More than simply a new industry, however, AI is changing the way economies operate, pushing firms toward further AI utilization to remain competitive (Wright and Schultz, 2018). As such, increased AI and business automation is expected to create an economic boom, increase productivity, and create a desirable labor supply (Arntz, Gregory and Zierahn, 2017; Wright and Schultz, 2018). AI can also reduce costs and increase safety and quality (Autor, 2015; Wright and Schultz, 2018). However, some evidence has also begun to suggest that AI has negative effects on the economy and labor. Acemoglu and Restrepo (2019), for instance, provide evidence that AI is associated with lower rates of hiring, resulting in economic stagnation. Firms are more likely to allocate tasks to AI if such tasks are compatible, which alters the skill requirements for new employees. And although some argue that AI complements labor (Autor, 2015), such positive effects are possibly insignificant when compared to AI's displacement potential Acemoglu and Restrepo (2019).

Given the fundamental influence many expect AI to have on the economy and society more broadly, AI regulation has gained considerable traction on the

global stage. The European Union, the OECD, and the International Organization for Standardization each have proactively initiated policies toward AI regulation focused on outcomes such as safety and security, privacy, transparency, innovation and development, and promotion of human values (Carter, 2020; de Almeida, dos Santos and Farias, 2021). The U.S. national government has also implemented federal guidelines to balance consumer protection with industry innovation and development (Chae, 2020; The White House, 2023), though such measures constitute only base principles for AI implementation. While some research indicates that AI will negatively disrupt economies and labor markets (Acemoglu and Restrepo, 2019; Frey and Osborne, 2017), others suggest that such forecasts are overstated (Arntz, Gregory and Zierahn, 2017; Autor, 2015). At the consumer level, research indicates that consumers benefit from AI, because AI makes labor more efficient, resulting in lower production costs and lower prices (Wright and Schultz, 2018). However, algorithmic bias and discrimination, misuse of individual data, and privacy violations highlight AI's potentially negative externalities (Chae, 2020; de Almeida, dos Santos and Farias, 2021).

Given these fundamental disagreements, there is no consensus today on how restrictive AI regulation should be (de Almeida, dos Santos and Farias, 2021; Reed, 2018; Tutt, 2017; Fosch-Villaronga and Heldeweg, 2018). Nevertheless, there *is* a consensus on a general need for AI regulation that simultaneously promotes consumer protection and AI innovation and development (Acemoglu and Restrepo, 2020; Chae, 2020; de Almeida, dos Santos and Farias, 2021). For its part, the U.S. federal government has promulgated multiple initiatives promoting fairness and transparency in AI development (de Almeida, dos Santos and Farias, 2021; Pack, 2022), but, it has simultaneously maintained a relaxed stance on legal intervention and has not adopted concrete law regarding the regulation of AI. As such, state legislatures find themselves the forefront of AI regulation, and have intervened with AI policies designed to pursue consumer protection and

innovation.

Nevertheless, relatively little scholarly research has examined how states have weighed the competing incentives behind AI regulation. Put differently, little is known about why and which states have adopted regulations, or what factors structure political debates over AI regulation in these states. Instead, existing literature has focused on the substance of individual regulations as adopted. Below, we summarize this literature. We then place it into the broader context of policymaking and diffusion in state legislatures. As we underscore, the novelty of AI policy potentially means that we need to employ empirical analysis to understand possible political fault lines regarding the design and adoption of AI policy.

AI Regulation and Modern Politics

In spite of the acknowledged potential benefits to the economy, AI's inherent risks to markets and consumers create an urgent need for regulation (de Almeida, dos Santos and Farias, 2021; Holder, Khurana, Harrison and Jacobs, 2016; Zardoya Jiménez and Amesti Mendizábal, 2022; Holder et al., 2016; Pack, 2022) . Although AI provides many economic benefits to firms and individual consumers, its inevitable increase in use and development likely requires carefully crafted legislation that strikes a fine balance between promoting AI innovation with consumer protection. While there is little disagreement that AI should be regulated, there is nevertheless little consensus on how restrictive regulation should be.

Given the potential economic and individual risks associated with AI, consumer protection is frequently the driving force behind legislative regulation (Zardoya Jiménez and Amesti Mendizábal, 2022). Yet, actual regulatory regimes vary considerably in balancing consumer protections against other interests. de Almeida, dos Santos and Farias (2021) analyze twenty-one different models of AI regulation and offer their own framework for establishing regulation guidelines, with regulation models ranging from restrictive (de Almeida, dos Santos and Farias, 2021; Tutt, 2017) to permissive (Gurkaynak, Yilmaz and Haksever, 2016; Reed, 2018) to

somewhere in-between (Fosch-Villaronga and Heldeweg, 2018). Still others argue that existing legal mechanisms—consumer protection laws within banking regulation—may be extended to regulate AI (Zardoya Jiménez and Amesti Mendizábal, 2022).

While the federal government has taken a largely hands-off approach to AI regulation, state legislatures have begun implementing laws dealing with AI innovation and consumer protection. In 2011, Nevada became the first state to enact legislation authorizing the use of AI in the form of autonomous vehicles (Gurkaynak, Yilmaz and Haksever, 2016). A handful of states followed suit, and Tennessee enacted legislation prohibiting local governments from banning vehicles using AI. After gathering information on the impacts of AVs, states began proposing legislation that promotes safety, data, and privacy protections for consumers related to AVs. The regulation of autonomous vehicles illustrates a mixed approach to AI regulation whereby innovation is promoted through the authorization of AV usage and by protecting consumers from the safety and privacy risks that AVs pose. More recently, state legislatures are responding to other implications of AI development and the potential threats to consumer safety, branching far beyond autonomous vehicles.

Current Examples of Legislation and the Difficulty of AI Politics

Beyond the regulation of AVs, state legislatures have begun proposing bills that establish committees tasked with studying the effects of AI on labor displacement, its development, and its effect on economic growth. For example, in 2019, Delaware adopted legislation requiring its state agencies to strategically plan for and minimize the risk of AI's labor displacement potential (NCSL, 2022). Both Alabama and Illinois adopted policies requiring committees and programs to promote AI innovation and its effect on economic development (New York Times Editorial Board, 2012). And New Jersey passed legislation tasking its Commis-

sioner of Labor and Workforce Development to study AI's effect on economic growth (NCSL, 2022). These policies illustrate how state legislatures are reacting to AI's economic impact.

Yet there is documented evidence that AI affects more than the broader economy, representing a direct threat to consumers. Cases of AI algorithmic bias and discrimination in obtaining employment, insurance, and credit, raise concerns about AI's application (O'Neil, 2016) and have prompted states to react through regulation addressing potential civil liberties violations. Thus, states like Illinois now prohibit employers and creditors from using AI in ways that consider racial traits in predictive analytics for purposes of establishing employment eligibility or creditworthiness (NCSL, 2022). Colorado prohibits insurers from using algorithms that discriminate based on race, sex, gender, and other traits (NCSL, 2022). And Idaho prohibits the use of algorithmic bias in determining sentencing and bail for defendants (NCSL, 2022). These legislative examples illustrate that state legislatures are aware of AI's potential threats to consumers and are reacting through regulation.

These examples all show that states are responding to the emergence of AI through regulation. However, the factors motivating states to pursue AI policy in the first place, and whether this legislation will focus more on economic growth or consumer protection, are decidedly less well understood. What influences state legislators to embrace AI policy centered on consumer protection? Are the factors driving support for consumer protection-oriented AI policy the same as those driving support for economic development-oriented AI policy? Answering this question is crucial to understanding how the AI industry may take root across the United States, as the question suggests that we explain the rise of a variegated and heterogeneous AI policy regime across the U.S. states.

Literature on the political economy of the U.S. states provides possible guidance. Work on the link between ideology and support for regulation (Hess, Mai

and Brown, 2016) suggests that greater governmental liberalism might translate into greater support for consumer protection-oriented AI policy. Other work focuses on a potential liberal tilt to policymaking in general, predicated on the idea that liberals are more likely to view government action as a legitimate pathway to addressing societal problems (e.g. Boehmke and Skinner (2012)). Such work suggests that greater governmental liberalism may even translate to greater support for economic development-oriented AI policy.

At the same time, however, a potential rebalancing of how we understand ideological positions on policy could complicate explanation. Conservative ideology, long thought to be anti-regulatory, might be taking a turn insofar as the Republican Party, the preeminent vehicle of manifesting conservative political power in the United States, is beginning to espouse more anti-corporate positions, especially concerning what we might refer to as economic nationalism—in addition to attempting to rebrand itself as a working class or even populist party. It is possible, then, that traditional ideological expectations may fail to explain AI policymaking in the U.S. states, and it is also possible that traditional partisan expectations (to the extent that ideology maps onto party in the U.S. states) may not hold regarding AI policymaking. Understanding the role of ideology and party in explaining AI policymaking choices is essential to help us navigate the political economy of AI regulation today and potentially moving forward.

In sum, then, there is a need to establish basic empirical facts behind the adoption of and support for different forms of AI regulation. The rapid emergence of AI demands attention from Republican and Democratic legislators alike; however, dominant dimensions of conflict or position-taking heuristics do not necessarily map well onto the AI landscape. Thus, as a first step in understanding the dynamics of AI policymaking, we analyze original data on AI policy adoption and roll call behavior in the U.S. states. As we show, behavior on consumer-facing legislation is decidedly distinct from other sorts of policymaking, though

the relationship between left-right ideology and AI policy adoption and support is not deterministic.

AI, Partisanship, and Policy Change in the U.S. States

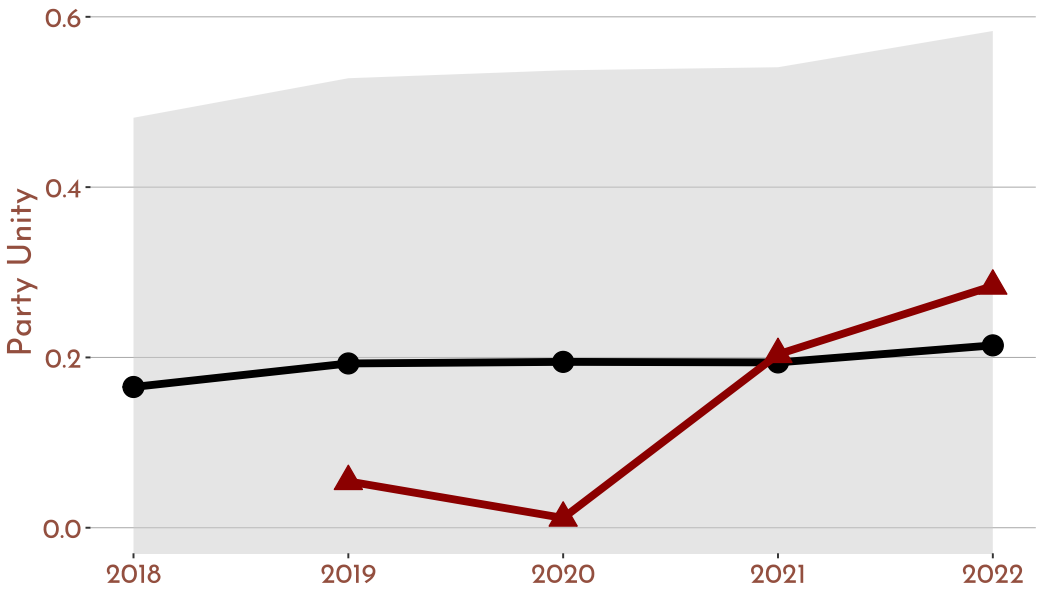
Given the tandem rise in polarization (e.g., Poole and Rosenthal 1997) and nationalization (Grumbach 2022) in American politics, understanding much of policymaking in modern American legislatures revolves around understanding partisan cleavages on particular issue areas. However, given the novelty of AI as an area for policymaking and regulation, it is unclear whether and to what extent AI regulation falls cleanly along existing partisan lines, as we describe above. Thus, as a first cut at exploring the issue dynamics of AI policy, we begin by examining the party unity on all existing roll call votes related to AI policy in the U.S. states.

To do so, we gathered data on all AI legislation in the U.S. states, as identified by the by the National Conference of State Legislatures (NCSL). NCSL maintains a database on all state legislation related to artificial intelligence, from 2018 to 2022. The data were last updated on August 26, 2022.[1] The data provide information on AI legislation by year, state, bill name, and status, and each entry includes a brief description of the bills' purposes. Additionally, the data include a hyperlink under the bill's name that allows users to access the full language of the bill on a third-party database. We then build on these data both by independently verifying the accuracy of legislative status and by identifying the roll call votes associated with each AI bill. To do so, we searched LegiScan[2] for the relevant roll call votes associated with each bill. For this analysis, we were primarily concerned with final-passage roll calls. Together, our search yielded data on over 1,700 votes on 32 total roll calls, from 2019 to 2022.

[1] `https://www.ncsl.org/technology-and-communication/legislation-related-to-artificial-intelligence`

[2] `www.legiscan.com`

Figure 1: Party Unity for AI (red) and All (black) Roll Calls, 2019-2022



These data enable us to more concretely examine the extent to which AI policy does or does not map onto existing partisan cleavages. That is, as a first cut, we can compare the relative level of partisan conflict on AI legislation relative other topics. To do so, in addition to our AI-specific roll call data, we compiled all roll call data available from OpenStates.org for the years closest to those in our AI dataset, 2018-2022 (where available). Using these data, we then measured a simple Rice (1927) index for 1) AI bills during this time period, and 2) all other bills during this time period.[3]

As Figure 1 displays, AI policy does in fact engender little party unity—at least early on. However, even over AI's rather short history, the average AI vote has indeed grown more partisan. By the final year in our data, in fact, that average AI roll call exhibits higher party unity than the average roll call overall. It is less clear, however, whether specific sorts of AI bills elicit partisan responses; and it

[3]The Rice Index is given by $\left|\frac{|Dem_{yea}-Dem_{nay}|-|Rep_{yea}-Rep_{nay}|}{2}\right|$

is unclear whether one party, or both parties, are driving this rise. Consequently, while variables like left-right ideology or party identity might command some explanatory power in later years, understanding AI policy uptake overall likely requires consideration of other factors.

If not partisan division, then what?

What, then, might these other factors be? And what might predict *individual* support for the legislation, once brought up for a vote? We posit that three main factors should be important in understanding AI policymaking in state politics. First, given that AI is arguably more human-capital-intensive—both in its creation and in its regulation—than other issue areas, we explore whether the wealthiness of a state predicts earlier AI policy adoption. Second, as intimated above, previous research highlights that new or novel industries are more likely to experience regulation from left-leaning political bodies, due to general ideological inclinations toward greater regulation of economic entities. Finally, rather than treating AI policy as a single subject or issue area, we posit that policymaking on AI is likely to follow distinct patterns based on the sorts of regulatory factors, namely economic growth and consumer protection, underscored in the aforementioned literature on AI regulation.

We explore these predictions first by examining the timing and uptake of AI legislation at the state level. Thereafter, we examine individual-level support for AI legislation, making use of our roll call data. Our findings indicate that, although partisan factors like unified government do explain some of the variation in AI policy uptake, economic factors like unemployment seem more predictive. At the individual level, however, party and ideology do seem to matter for AI policy support. Particularly with respect to consumer-focused AI policy, and Democratic legislators are more likely to support AI legislation, all else equal.

When and Why Do States Adopt AI Policy?

Although roll call votes are decidedly less partisan for AI bills overall than for the entirety of modern roll calls, states have undoubtedly varied on the speed with which—and the basic extent to which—they have pursued AI regulatory policy. In fact, while NCSL identifies 181 AI-relevant bills in U.S. legislatures from 2018 to 2022, only 27 of those bills were enacted. This means that many states have yet to adopt AI-relevant legislation altogether.

To investigate the factors associated with adoption of AI policies (and the timing thereof), we execute a series of adoption models, using event history techniques commonly implemented in the study of policy adoption and diffusion. In doing so, we begin our data frame at the time of the earliest bill introduction, 2017. For every state that has not adopted AI legislation, the dependent variable takes the value 0 in the corresponding year. However, once the state does adopt AI legislation, the variable takes on the value 1 in the year of adoption and the corresponding state exits the dataset thereafter. Structuring the data in this way allows us to examine not only the factors associated with policy adoption, but also the timing of said adoption.

As prefaced earlier, we are interested a series of factors that may explain AI policy adoption at the state level. First, we include *State Personal Income*, which enables us to explore whether the human capital intensivity of Artificial Intelligence as both an industry and a subject of regulation. Along similar lines, we include the state unemployment rate, given AI's potential for "creative destruction" (Schumpeter, 1978). Second, we include a term that captures whether the levers of a state government are held by the same party (*Unified Government*) to capture policy preference similarity. To address whether left-leaning lawmakers are more eager to craft regulations compared to their right-leaning counterparts, we include *Median House Ideology* and *Median Senate Ideology*, measured using Shor-McCarty ideal points for state legislators (Shor and McCarty, 2011). We

include these two variables in alternate model specifications to address potential concerns over multicollinearity if they are included in the same model specification.

Finally, we include a series of control variables that may explain variation in AI policy uptake. Included among these are *Legislative Professionalism* (Squire, 2017) and *Neighbor AI Adoption*, which captures whether a state (state *i* in year *t*) borders another state that adopted AI policy as of year *t-1*. Both variables are common in models of policy diffusion; and, as they pertain to AI policy may make particularly good sense as predictors. If AI policy does require considerable human capital to understand, for instance, professional legislatures may be better able to pursue AI legislation. Moreover, in the case, of neighbor adoption, policy spillover may be especially beneficial in a technical area like AI. We also include time smoothing variables (*Year*, *Year Squared*, and *Year Cubed*) to account for the influence of time on adoption. The smoothing variables are based on a demeaned measure of the year variable to reduce concerns of multicollinearity. Table 1 displays results of logistic estimation with state clustered standard errors. Models 1 and 2 alternately include the median house and median senate ideology variables, and models 3 and 4 are respective replicas of models 1 and 2, except for the use of the rare-effects logistic estimator (given that there are relatively few instances of states adopting AI policy and dropping out).

Table 1 displays the results of these regressions. Overall, although our measure of income is not a significant predictor of AI policy uptake, another economic factor does exhibit a fairly consistent association with AI policy: unemployment rate. Here, as unemployment in a state rises, it is associated with a lower likelihood of AI policy passage. Looking at predicted probability values, if unemployment increases from 1 percent to 4 percent, the probability of a state establishing an AI policy regime experiences a reduction in probability of 45 percent. This is consistent with the idea that policymakers may believe that the public views AI

Table 1: Factors Influencing Adoption of AI Legislation

Variable	Logistic (1)	Logistic (2)	Rare Events Logistic (3)	Rare Events Logistic (4)
State Unemployment	-0.629*	-0.675*	-0.524	-0.560*
	(0.351)	(0.331)	(0.338)	(0.319)
State Personal Income	0.069	0.040	0.064	0.042
	(0.176)	(0.185)	(0.169)	(0.178)
Unified Government	2.226**	2.563***	1.533	1.750*
	(1.073)	(0.977)	(1.032)	(0.939)
Median House Ideology	-0.590		-0.483	
	(0.432)		(0.416)	
Median Senate Ideology		-0.860		-0.705
		(0.527)		(0.507)
Neighbor AI Adoption	1.426	1.555*	1.300	1.423
	(0.895)	(0.900)	(0.861)	(0.865)
Legislative Professionalism	3.076	3.059	2.586	2.455
	(4.502)	(4.488)	(4.329)	(4.316)
Year	3.708**	3.931**	2.562	2.688
	(1.709)	(1.771)	(1.652)	(1.703)
Year Squared	-0.964**	-1.013**	-0.018	-0.047
	(0.386)	(0.393)	(0.371)	(0.377)
Year Cubed	-0.687**	-0.724	-0.832**	-0.849**
	(0.381)	(0.350)	(0.328)	(0.336)
Observations	250	251	250	251

***<0.01;**<0.05; and ***<0.10 with respect to critical thresholds.

technology as a job destroyer rather than a creator. The presence of unified government also appears (in three models) to relate significantly and positively with AI policy adoption, suggesting that partisan alignment within state government enables AI policy passage. The predicted probability value of adopting an AI policy regime increases by 500 percent when a state switches from divided to unified government.[4] There is some support (albeit not uniform based on statistical significance) for the passage of time increasing the likelihood of AI policy adoption, and there is also support (again not uniform based on statistical significance) for the idea that AI policy spreads across the states based on a geographic diffusion process. Both the time and geography findings are well-established in the policy adoption literature and therefore not entirely surprising; it *is* valuable to show, however, that these adoption pathways may also be applicable to AI policy, which could be different from previous policy issues in that it deals with regulating an area of great and burgeoning technological sophistication.

What is also noteworthy is that ideology itself did not appear to play a meaningful role in AI policy adoption. While the directionality of the relationship between ideology and AI policy adoption is negative (suggesting a preference in the liberal direction for AI policy adoption), the non-significance of ideology is suggestive of the AI issue being one that attracts attention from both sides of the ideological spectrum. Indeed, the passage of AI policy in states as ideologically disparate as California and Mississippi indicates that an ideologically heterogeneous group of states have been among the first to develop policy around AI.

While the state adoption analysis showcases the conditions under which states are likely to adopt a first policy dealing with AI (with the results indicating that rising unemployment militates against a state's first adoption of AI policy), the

[4]Interestingly, there is more support for a finding linking unified government (regardless of the party in power) to state AI adoption than unified Democratic government, which only obtains statistical significance (with a positive direction) in one of the four models appearing in table 1. A potential implication is that both parties are amenable to adopting AI policy and that shared preferences matter more than Democratic preferences in accounting for adoption.

state-level analysis misses important action. We are unable to capture variation within legislature (in terms of ideology, for example) and see how this influences behavior with respect to AI policy-making. The state-level analysis, where we utilized a common event history adoption technique of dropping a state once it adopted its first AI policy, also resulted in our ignoring of multiple AI policy attempts within a state. Given that legislators may craft multiple AI policy proposals at the same time; and given that any of these may influence subsequent AI policy attempts at the state or federal level, it is important to examine legislator-specific determinants of support for AI policy. Even though ideology does not predict a state's first adoption of AI policy, does it predict legislator support for voting "yes" on AI legislation (which can happen multiple times given that some states have produced multiple attempts at advancing AI legislation)? Are there party-specific effects with respect to analyzing legislator support for AI legislation? In the next section, we divide AI legislation (including bills that have passed as well as those that have not) into two types: those dealing with consumer protection and those dealing with economic growth. This allows us to assess how politics might influence legislator support for advancing different kinds of AI policy.

What predicts support for AI policy changes?

We evaluate the legislator-level features of support for AI legislation by examining the characteristics of "yes" votes on bills dealing with AI. In order to best capture the nature of legislators' support, however, we first classify AI bills according to one major distinction in AI policy, summarized above: consumer-focused versus business-focused legislation. AI technology has brought consumer protection to the forefront and catalyzed questions such as whether (to use a prominent example) resume-screening algorithms will discriminate against applicants with certain names, or whether lending algorithms use a person's listed home address

as a reason to *not* extend a mortgage loan. Government action may be necessary to guard against such discriminatory uses of AI technology, and some state legislatures have proposed and even adopted bills to that effect. By contrast, many AI bills do not deal with consumer protection. A large portion of these bills center on economic growth and development. Some state legislatures, for example, have proposed bills claiming that AI technology will transform the economy and introducing means for ensuring that their states will be at the forefront of this economic transformation. Table 2 details state bill proposals displaying the state name, bill number, type of bill, and bill year.

The table demonstrates that many (though not close to a majority) of states have proposed bills dealing with AI. The states are mainly clustered around the coasts (including California, New Jersey, New York, and Washington); however, there are some states in the interior of the United States (such as Alabama and Idaho) that also developed bills around the issue of AI. Notice also that there is a divide in terms of the topical orientation of the bills. While it may be unsurprising that a conservative state legislature (such as Idaho's or Utah's) may have developed an AI bill that does not center on consumer protection, it is perhaps more surprising that liberal state legislatures (like California's, for example) have authored AI bills that deal with both consumer protection and economic growth. One might think that the party of a legislator explains which of these bills receive a favorable vote to adopt (with conventional wisdom predicting that a Democratic Party affiliation should translate into a "yes" vote on AI bills dealing with consumer protection while a Republican Party affiliation should translate into a "yes" vote on AI bills *not* dealing with consumer protection) but even here, a quick glance of vote returns reveals many legislators not voting based on such a simple expectation. A fuller analysis of the factors motivating legislators to vote "yes" on each kind of AI bill thus is necessary, and we now provide that analysis.

For each of the bills in table 2, we identify roll call votes for legislators and

Table 2: AI Bill Activity and Type

State	Bill Number	Bill Type	Year
California	AB 1576	Consumer Protect	2019
California	ACR 125	Consumer Protect	2019
California	AB 485	Consumer Protect	2019
Illinois	HB 2557	Consumer Protect	2019
California	SB 730	Consumer Protect	2019
Delaware	HCR 7	Consumer Protect	2019
Idaho	HB 119	Consumer Protect	2019
New York	AB 5605	Consumer Protect	2020
Washington	SB 5092	Consumer Protect	2021
Colorado	SB 169	Consumer Protect	2021
Illinois	HB 645	Consumer Protect	2021
Illinois	HB 53	Consumer Protect	2021
Colorado	SB 113	Consumer Protect	2022
Illinois	HB 1811	Consumer Protect	2022
California	SB 1018	Consumer Protect	2022
California	AB 2273	Consumer Protect	2022
Washington	SB 5693	Consumer Protect	2022
California	AB 2408	Consumer Protect	2022
New York	SB 2971	Not Consumer Protect	2019
New York	AB 2946	Not Consumer Protect	2019
Texas	SB 64	Not Consumer Protect	2019
California	AB 594	Not Consumer Protect	2019
California	SJR 6	Not Consumer Protect	2019
California	SB 348	Not Consumer Protect	2019
California	AB 946	Not Consumer Protect	2019
California	SB 444	Not Consumer Protect	2020
New Jersey	SB 2723	Not Consumer Protect	2020
Utah	SB 96	Not Consumer Protect	2020
Alabama	SB 78	Not Consumer Protect	2021
Mississippi	HB 633	Not Consumer Protect	2021
New Jersey	AB 195	Not Consumer Protect	2021
New Jersey	SB 2723	Not Consumer Protect	2021
Illinois	SB 252	Not Consumer Protect	2022

combine these with legislator-specific variables (including ideology, party, chamber, and whether the legislator is a member of a committee with jurisdiction over the bill) and state-specific variables (including the wealth of the state and the unemployment rate of the state). We separate AI bills dealing with consumer protection from those not dealing with consumer protection if the summary or introduction of the bill mentions the rights or need to protect individuals from AI uses in some way; if the summary or introduction of the bill includes language to this effect, we code the bill as dealing with consumer protection (of course, if the summary or introduction do not mention such language, we code the bill as not being centered on consumer protection). We then separately estimate factors predicting a "yes" vote on AI bills dealing with and not dealing with consumer protection. Table 3 displays results for both AI bills dealing with consumer protection and AI bills that do not. For each kind of bill, we estimate two models: a logistic model with heteroskedasticity-robust state-clustered standard errors, and a logistic model using state-specific random effects. We do *not* utilize state-specific fixed effects because of the cross-sectional nature of our data, which renders the use of fixed effects inappropriate since state-specific right-hand-side variables are slow-moving and do not change.

Table 3 displays some illuminating findings. In the random effects specifications,[5] the coeffient on party is quite strong for consumer protection bills: Republican legislators are significantly less likely (experiencing a 2.6 percentage point decrease in the probability of voting "yes") to support consumer protection AI legislation. Of course, proper context is also necessary, as the reduction in probability goes from 99.8 to 97.3 percent, suggesting (as is well known) that bills going to a final vote on adoption are likely to pass. Nonetheless, the existence of partisan effects suggests that consumer protections in the AI universe are likely to be implemented in Democratic-leaning legislatures. The other finding,

[5]Concerning AI bills dealing with consumer protection, we urge paying attention the state random effects specification, as this is supported by the likelihood ratio finding.

Table 3: Factors Associated with "Yes" Votes on AI Legislation

Variable	Pooled Logistic Consumer Protection	Random Effects Logistic^ Consumer Protection	Pooled Logistic *Not* Consumer Protection	Random Effects Logistic^ *Not* Consumer Protection
Legislator Ideology	-0.011*	-0.0006	0.0002	0.0002
	(0.006)	(0.002)	(0.002)	(0.001)
Committee Service	-0.274	0.655**	0.782	0.788
	(0.427)	(0.290)	(0.623)	(0.611)
Upper Chamber	-0.780	-1.140***	0.041	0.044
	(0.540)	(0.248)	(0.182)	(0.264)
Republican Party	-1.076	-3.680***	-0.341	-0.329
	(0.818)	(0.486)	(0.590)	(0.361)
State Unemployment	0.103	0.089	0.033	0.033
	(0.102)	(0.062)	(0.045)	(0.068)
State Personal Income	0.039	-0.0008	0.097**	0.099***
	(0.067)	(0.200)	(0.041)	(0.033)
Observations	1711	1711	1293	1293

***<0.01;**<0.05; and *<0.10 with respect to critical thresholds.

^ In the random effects specification, a likelihood ratio test of the proposition that ρ equals 0 is rejected. The test statistic value for the consumer protection model is 207.77 with a corresponding probability of being greater than or equal to the test statistic of 0.000. The test statistic value for the non-consumer protection model is 0.10 with a corresponding probability of being greater than or equal to the test statistic of 0.379.

that being affiliated with a committee with jurisdiction over a consumer protection bill makes voting "yes" on the bill more likely, has a much smaller effect (a hundredth of a percentage point) but still suggests that committee jurisdiction matters, at least in statistical terms, to voting "yes" on AI consumer protection bills.

In the models pertaining to non-consumer protection AI bills, we urge paying attention to the pooled logistic regression results, as the state random effects logistic results are not supported based on the likelihood ratio finding. The pooled logistic regression results suggest, interestingly, that there are *not* partisan effects in voting in this set of bills. This finding matters substantively as it suggests that switching to non-consumer protection topical matter does not automatically confer Republican support for AI legislation. A potential takeaway is that Republicans may be somewhat skeptical about AI legislation in general compared to Democrats (we cannot conclusively say that Republicans are opposed as the non-consumer protection AI voting directionality is not statistically significant; however it is possible that Republicans are less enthused about AI legislation compared to Democrats). Another noteworthy finding concerns the non-significance of legislator ideology. One might imagine that there should be an ideological pattern to voting for consumer protection AI bills as well as non-consumer protection AI bills, with liberals voting for consumer protection and conservatives voting for non-consumer protection bills. However, results from our analysis suggest that this is not the case. It is possible that ideological fault lines with respect to AI legislation have yet to fully form, with consumer-protection bills engendering more partisan and ideological dynamics more readily than non-consumer-protection bills. It is also possible that at least within the Democratic Party coalition, liberals and moderates can agree upon the goal of implementing consumer protection-oriented AI legislation.

Conclusions and Next Steps

In this paper, we have sought to shed light on the political factors associated with legislative activity on the fledgling AI-regulation issue area. AI is itself an expansive concept, with effects spanning from research and development to civil rights and privacy to employment and competition and beyond. Yet in spite of the breadth of AI, we find a handful of political and economic factors to be consistently associated with AI policymaking and legislative support. First, economic factors like unemployment are important to consider, as we find that unemployment is negatively associated with adoption of AI policies. Future research should further investigate the mechanism behind this association, and it seems plausible that lawmakers today remain worried about the short- and medium-term potential for AI to eliminate jobs. At the individual-legislator level, higher per capita income is associated with higher support for AI policy—but only on non-consumer-related legislation. Second, we find that partisan factors predict AI policy activity, albeit in different ways at the state- and individual-legislator level. At the state level, AI policy adoption is more likely when a single party retains control of the legislature and governor's office—similar to other sorts of policy areas. At the individual level, however, party itself predicts AI policy support in a more direct faction, at least among some kinds of AI policies. Indeed, Republicans exhibit a smaller probability for supporting consumer-protection AI bills than do Democratic state legislators.

Finally, our research underscores the political importance of the distinction between consumer-protection AI legislation and business- or economy-focused legislation. As with other sorts of business regulations, progressives and Democrats are pre-disposed to support legislation that protects the civil rights and liberties of consumers. However, at least in the abstract, this need not be the case: indeed, small-government conservatives and libertarians—as well as those concerned with various sorts of "algorithmic bias"—may have reason to support

certain sorts of consumer-protection legislation. With a handful of exceptions (Idaho being the most notable), Republican states are not especially likely to pass consumer-protection legislation. And at the individual level, Republicans are less likely to support consumer-protection AI legislation. Interestingly, though, no such trends emerge in examining non-consumer-protection legislation. As such, it seems as though partisan cleavages have not fully developed on AI policy.

Our hope is that future research will continue to track these policy differences, and the partisan and ideological dynamics underlying their adoption, as AI policy matures as an issue area. Given the inherent tensions of AI policy, including privacy, economic growth, security, and innovation, AI's precise partisan and political cleavages are bound to evolve over time. As they do, the sorts of policy changes and solutions that are possible in U.S. legislatures—and the regulations to which businesses domestic and international are subject—are likely to shift accordingly.

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