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Diffusion of Revocation: The Movement Away from the Common Core State Standards

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Diffusion of Revocation: The Movement Away from the Common Core State Standards

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Abstract

The Common Core State Standards (CCSS), released in 2010, represented a new push to standardize curriculum across states and to promote college and career readiness in schools. The federal government's Race to the Top grant program indirectly created strong incentives for states to adopt the CCSS, and 45 states and the District of Columbia adopted the standards. Since their adoption, many states have shown signs of moving away from the CCSS through bills introduced in state legislatures and Indiana has recently become the first state to officially opt out of the Standards. This paper seeks to examine this movement away from the CCSS and to answer the following research question: what are the factors that are leading states to show signs of backing away from these standards that they have adopted? This paper addresses internal and external factors that could lead to this outcome, including states' motivation to move away from the CCSS and the legislative obstacles that states may face in this process.

Introduction

On March 24, 2014, Indiana became the first state to officially pass legislation to opt out of the Common Core State Standards.[1] Indiana, which was among the first few of the 45 states to adopt the Common Core, could serve as a model for other states moving in this anti-Common Core direction. State legislatures have become increasingly involved in the debate about the Common Core, as legislation related to the Standards has been increasingly more prevalent over the few years since the Standards were introduced and adopted. In this paper, I will analyze introductions of bills related to the Common Core State Standards that were introduced in state legislatures in the period from January 2011 to December 2013 in an attempt to answer the question: how can we explain the states' movement away from the Common Core State Standards?

The Rise of Standards-Based Learning and the Common Core State Standards

The Common Core State Standards (CCSS) Initiative, announced in 2009 and released in June 2010 for math and English and sponsored by the National Governors Association, the Council of Chief State School Officers, and the non-profit group Achieve, represented a new push to standardize the expectations of what students should know at each grade level across states to better prepare students for college and to enter the workforce. Shortly following their release in 2010, CCSS was adopted by 39 states and the District of Columbia. In subsequent years, six more states have adopted the Standards, resulting in the presence of CCSS in schools in 45 states plus the District of Columbia.

[1] http://www.indystar.com/story/news/education/2014/03/24/gov-mike-pence-ends-

Efforts to create uniform national standards in the past have not garnered much support. Party politics have been one factor contributing to pushback against national standards: fears of federal takeover of a historically state-held responsibility dominate from the right, while disagreement about assessments extends from the left. Additionally, lawmakers and education experts have experienced much difficulty reaching agreement as to what students should be learning. In 1990, George H.W. Bush set up the National Education Goals Panel to work towards drafting national standards. History standards in particular caused much disagreement. In fact, when these proposed history standards went before the U.S. Senate for a vote, they were voted down 99-1.

The reauthorization of the Elementary and Secondary Education Act (ESEA) as No Child Left Behind (NCLB) in 2001 provided a different avenue for strengthening content standards. Under this law, states were free to determine their own standards, but were required to reach certain levels of student proficiency. Since the introduction of NCLB, states had each set their own standards and administered their own assessments to determine the proficiency of their students. Under this system of state control over standards, children in different states could get very different levels of education. A key concern that arose in the years following the implementation of NCLB was that states creating their own standards might set the bar too low. States could shift their focus from improving learning to just increasing test scores. The Common Core State Standards arose from a desire to level the playing field across the country and to positively impact student achievement.

According to Robert Rothman (2011), the Common Core State Standards differ from pre-existing state standards in four key ways. First, the CCSS are aimed at college

and career readiness. Second, the CCSS are internationally benchmarked. The CCSS are intended to be comparable to the expectations of nations that outperform the United States on measures of student achievement. Third, the CCSS are designed to clearly indicate to students, parents, and teachers what is most important to learn at each grade level. Fourth, the CCSS are intended to be *common* across all states.

While previous efforts to move toward national standards have failed due to political roadblocks, the CCSS began with statements of support from chief state school officers and governors from 48 states and was supported by the federal government since before the Standards were even released.[2]

Unlike previous attempts to create national standards, which were largely developed as top-down policy from the federal government, the CCSS were developed from bottom-up and then supported from top-down. The bottom-up development of the CCSS helped to alleviate the fears of federal overinvolvement in determining what children should learn, which was much of the issue with standardization efforts in the late 1980s.

One large indirect form of support for CCSS from the national government came through the Race to the Top (RTTT) program. One of the things that the U.S. Department of Education required applying states to do was to strengthen their standards and assessments. In the competition, 40 out of a possible 500 points given to each application were dependent upon whether the state had adopted common standards by August 2,

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[2] In a 2009 speech to state governors, U.S. Secretary of Education Arne Duncan acknowledged his support of the initiative: *"Kids competing for the same jobs should meet the same standards. So while this effort is being led at the state level, as it should be, it is absolutely a national challenge, which we must meet together or we will compromise our future."* (http://www2.ed.gov/news/speeches/2009/06/06142009.html)

2010. These common standards were to be internationally benchmarked and to include components for college and career readiness. Although no direct reference to the CCSS was made, it was clear that states adopting CCSS would fill all of these criteria. Thus, without explicitly requiring states to adopt CCSS, the Department of Education created strong incentives for states to do so.

At this point in time, since RTTT winners have been decided, that particular incentive for adoption of the CCSS has largely disappeared for most states. In the time that has passed since their adoption, several states have started to show signs of making a move away from the CCSS. Since the adoption of the CCSS by 45 states and the District of Columbia, bills representing a movement away from the CCSS have been introduced in many state legislatures across the country. While the majority of the bills introduced thus far have not been successful as far as revocation of the CCSS, with only Indiana so far being successful in signing one of these bills into law, the introduction of such bills illustrates the fact that moving away from the CCSS is an idea on the political agenda of legislators in multiple states.

Theoretical Framework

I believe there are two major factors that have a hand in influencing a state's decision to either move away from the CCSS or to take no negative action: the political obstacles to innovation and the state's motivation to keep up with other, more innovative, states. The more political obstacles a legislator will face in making moves on legislation related to CCSS, the less likely it is that legislation will pass or even be introduced in the state legislative bodies. Legislators will, however, be likely to introduce legislation if

they are attempting to replicate things that have been done in other states that are considered more innovative. In other words, policies should diffuse from more innovative to less innovative states unless there are major political roadblocks holding back the process of diffusion. The existing literature on policy diffusion and innovation can be used as a framework to move toward an explanation for state movements away from the CCSS and to examine the likelihood that states will continue to move toward revocation of the standards in the future.

Policy innovation occurs when a government adopts a policy that is considered "new" to that particular government (Walker 1969). Under this definition, innovation can occur even if many other governments have previously adopted the policy in question. Two major explanations exist for state government innovation: internal determinants and diffusion models. Internal determinants such as economic or demographic characteristics of a state can lead to innovation. Under diffusion models, innovation comes about in response to previous adoptions of policies by other states. Prior to Berry and Berry's (1990) study of state lottery adoptions, internal determinants and diffusion effects were generally studied separately. This separation of the processes was empirically flawed. Very few policy adoptions can fully be explained as a function of solely internal determinants or diffusion effects.

The states, then, can be viewed as a social system where the adoption of a policy in one state is influenced by the behavior of other states. According to Berry and Berry (1997, 2007), there are three basic reasons why policies diffuse from state to state: learning, competition, and coercive pressure from the federal government. Walker (1969) asserted that state policymakers will use shortcuts in their decision-making by adopting

policies that have been proven successful in other states. This constitutes a state's "learning" from others. Alternatively, states may emulate policies of other states in order to gain some advantage or to avoid falling behind. This competition between states can lead to a pattern of diffusion where states are looking to "leader states" to inform their policymaking. The third argument, supported by Walker (1969), is that although states are given their own authority, pressure still exists from the national or regional level to conform to certain standards, which can lead states to adopt certain policies or programs.

In the case of diffusion across the states, there are two ways to approach an explanation of patterns of adoption. First, a national interaction model assumes that the probability that a state will adopt a program is proportional to the number of interactions its officials have had with officials of already-adopting states (Gray 1973). The national interaction model is, however, limited in its effectiveness in explaining diffusion. The model assumes that at any given time, each non-adopter is equally likely to adopt the policy in question and that the only variable influencing this probability is the number of previous adopters. This approach then is not adequate for a more nuanced explanation of diffusion because factors internal to each state will also play a significant role in whether or not a state adopts a policy. The second way to approach an explanation of patterns of adoptions is a regional diffusion model. The regional model assumes that states will be influenced most by those states that are closest. This can be examined either by looking at states that share borders (Berry and Berry 1990) or by looking at states within fixed regions of the country (Mooney and Lee 1995).

Several other diffusion models can be used to examine diffusion across states. Leader-laggard models assume that certain states are pioneers in the adoption of a policy,

and that other states emulate these leaders (Walker 1969). Leader-laggard models assume that innovation comes from learning from those states that are seen as leaders. Collier and Messick (1975) developed a further explanation of leader-laggard models by hypothesizing that diffusion is the product of a hierarchical model. Once a specific characteristic – some measure of innovativeness – is defined and states are ranked on the value of this characteristic, it is believed that policies will diffuse down the hierarchy from most to least innovative. Isomorphism models posit that states are most likely to adopt policies from other states that are similar. This is particularly relevant in regional models of diffusion, where nearby states are more likely to be similar. Important similarities for diffusion include ideological similarity (Grossback, Nicholson-Crotty, and Peterson 2004) and a wide range of "political, demographic and budgetary similarities" (Volden 2006). Vertical influence models are related to pressure from the national government to adopt certain policies, especially when the national government provides incentives for this policy adoption.

Certain explanations for policy diffusion also exist in the form of internal determinants models. These models explain diffusion as occurring due to reasons related to political, economic, and social characteristics of the state itself. Although it is highly unlikely that any policy adoption in a state is entirely independent from previous adoptions by other states, internal determinants models can be helpful in explaining the characteristics that determine if and when adoption will occur in a particular state once the state is aware of the policy due to previous adopters. Many theories from internal determinants models in state innovation come from theories about innovativeness in organizations. Mohr (1969) proposes that the probability that an organization will

innovate is inversely related to the strength of obstacles to innovation and is directly related to both the motivation to innovate and the availability of resources for overcoming the obstacles to innovation. One potential explanation for high motivation to innovate could be the severity of the problem at hand. The more severe the problem, the more likely a state will be to innovate by adopting policies to fix the problem due to a demand for innovation. The presence or absence of obstacles to innovation is also incredibly important in determining whether or not a state will innovate. Lack of available funding to support a new policy is one obvious issue that could potentially hinder movement toward innovation. According to Brooks (2005), fragmentation of political parties within the state could also lead to a decreased likelihood of innovation. If laws cannot be passed to support policies, innovation cannot occur.

An alternative explanation of propensity to innovate is the existence of policy windows, or rare periods of opportunity for innovation, that occur when a new politician takes office or a specific event occurs to make policy innovation more likely (Kingdon 1984). This concept of a policy window could potentially be extended to explain effects of RTTT on states' initial adoptions of the CCSS.

A combination of internal determinants and diffusion is used to explain the probability that a state will adopt a policy in a specified time period in the unified model of state government innovation proposed by Berry and Berry (1997, 2007). The unified model of state government innovation seeks to explain the dependent variable – probability of adoption – through a collection of independent variables, including motivation to adopt the policy in question, the obstacles to innovation and the resources

available for overcoming those obstacles, diffusion effects of the state at the specified time period, and the presence or absence of other related policies.

Common Core in State Legislatures: Defining the Landscape

Figure 1 shows both the total number of CCSS-related pieces of legislation broken down into the numbers of CCSS-negative and CCSS-positive pieces of legislation that have been introduced in each year over the time covered by my study. The total numbers of CCSS-related legislation, both positive and negative, have seen dramatic increases year after year, which shows legislators' increased attention to the topic over time.

Figure 1: Total Number of CCSS-Related Bills Introduced in Each Year (2011-2013)

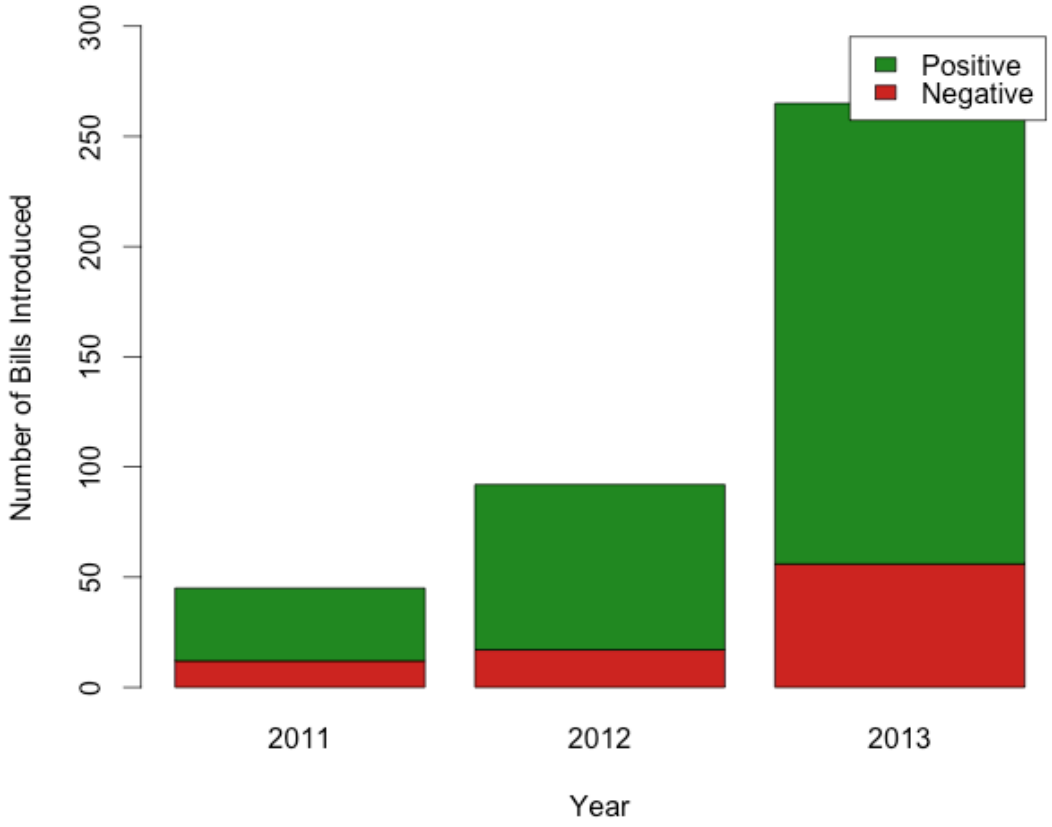


Figure 2 gives a breakdown of total number of pieces of CCSS-related legislation introduced in each state legislature. From this figure, it is clear that there has been much variation across states as to how much attention this topic has been given in state legislatures.

Figure 2: Number of CCSS-Related Bills Introduced in Each State (2011-2013)

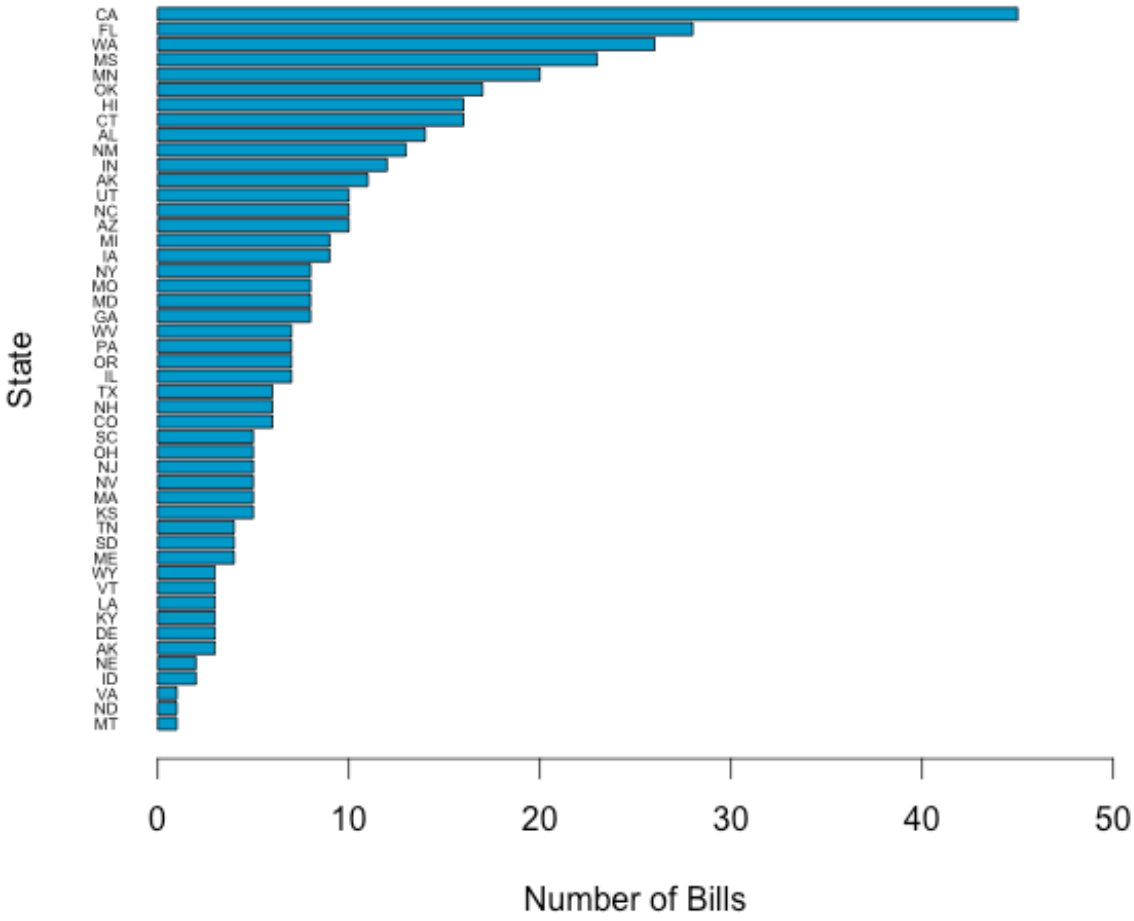


Figure 3 and **Figure 4** give an overview of bill introductions in states based on the parties of the cosponsors of the bills. For each bill introduced, I collected information on all of the bill cosponsors. These cosponsors were then coded by party and averaged across bill introductions for each state. Republican cosponsors were coded as 1 and Democratic cosponsors were coded as -1. This number for each cosponsor for each bill in

each state was then averaged to produce a number between -1 and 1 for each state that shows which party in each state legislature had more CCSS-related bill cosponsorships. **Figure 3** shows the party breakdown by state for all CCSS-related bill introductions. This figure shows that overall, CCSS-related legislation was introduced with relatively similar frequency across party lines.

Figure 3: Average Party Score of Bill Introductions in Each State (2011-2013)

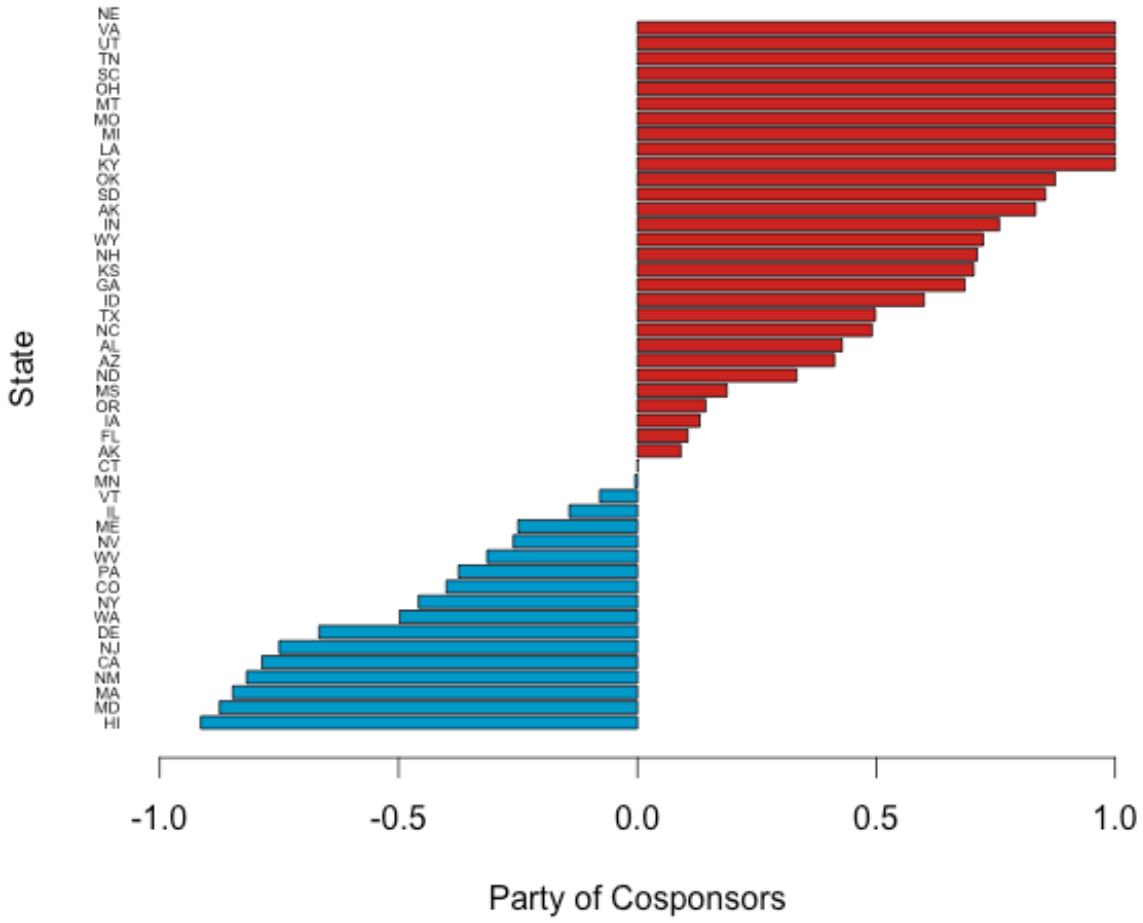
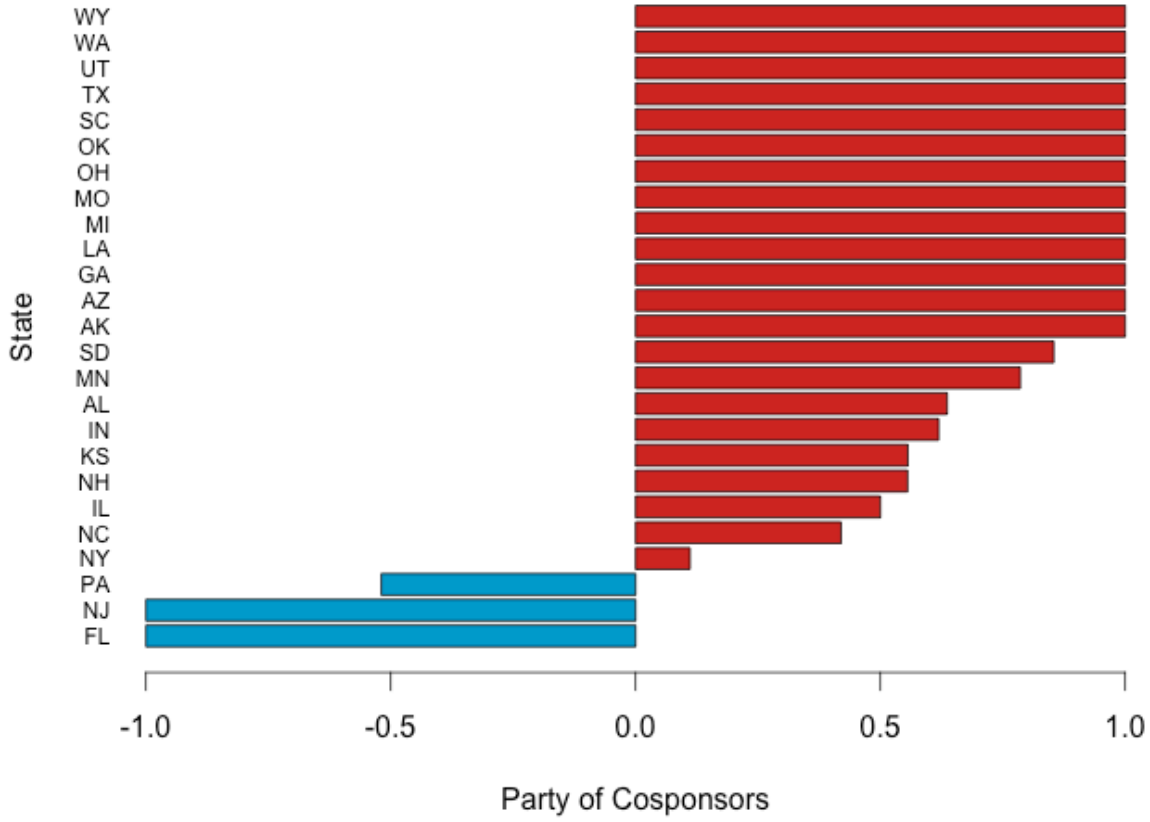


Figure 4 shows the same information, but only for CCSS-negative bills. This figure shows that legislators introducing CCSS-negative legislation across the states were overwhelmingly Republican. Of all the states with introductions of CCSS-negative legislation across the time period of my study (2011-2013), only three states saw

introductions of CCSS-negative legislation coming from mostly Democratic legislators. In 13 of these states, every CCSS-negative bill that was introduced was sponsored entirely by Republican legislators.

Figure 4: Average Party Score of Negative Bill Introductions in Each State (2011-2013)



When looking at the overall likelihood of the first introduction of such legislation in each state, it is clear that the probability of first introduction has been increasing over time. **Tables 1-3** show the hazard rates for each month across the timespan covered by my dataset. Hazard rates for each time period were calculated by dividing the number of events occurring in each time period by the size of the risk set in that period.

Table 1: Monthly Risk Sets, Hazard Rates, and States Introducing CCSS-Related Legislation

Time Period	States Introducing CCSS-Related Legislation	Number of Introductions	Cumulative Introductions	Risk Set	Hazard Rate
January 2011	CA, HI, MN, NH, OR, SD, WA	7	7	50	**0.140**
February 2011	AR, NV, OK, SC	4	11	43	**0.093**
March 2011	GA, ME, NC	3	14	39	**0.077**
April 2011		0	14	36	0.000
May 2011	AL	1	15	36	**0.028**
June 2011		0	15	35	0.000
July 2011		0	15	35	0.000
August 2011		0	15	35	0.000
September 2011		0	15	35	0.000
October 2011		0	15	35	0.000
November 2011		0	15	35	0.000
December 2011	UT	1	16	35	**0.029**
January 2012	AZ, CO, DE, FL, IN, KY, MD, NM, TN, VT, WV, WY	12	28	34	**0.353**
February 2012	AK, CT, IA, MS, MO	5	33	22	**0.227**
March 2012	LA, NJ, OH	3	36	17	**0.176**
April 2012	PA	1	37	14	**0.071**
May 2012	MT	1	38	13	**0.077**
June 2012		0	38	12	0.000
July 2012	MA	1	39	12	**0.083**
August 2012		0	39	11	0.000
September 2012	MI	1	40	11	**0.091**
October 2012		0	40	10	0.000
November 2012	IL	1	41	10	**0.100**
December 2012		0	41	9	0.000
January 2013	KS, NE, NY, ND, TX, VA	6	47	9	**0.667**
February 2013		0	47	3	0.000
March 2013	ID	1	48	3	**0.333**
April 2013		0	48	2	0.000
May 2013		0	48	2	0.000
June 2013		0	48	2	0.000
July 2013		0	48	2	0.000
August 2013		0	48	2	0.000
September 2013		0	48	2	0.000
October 2013		0	48	2	0.000
November 2013		0	48	2	0.000
December 2013		0	48	2	0.000

Table 2: Monthly Risk Sets, Hazard Rates, and States Introducing CCSS-Negative Legislation

Time Period	States Introducing CCSS-Negative Legislation	Number of Introductions	Cumulative Introductions	Risk Set	Hazard Rate
January 2011	NH, SD	2	2	50	**0.040**
February 2011	OK, OR, SC, WA	4	6	48	**0.083**
March 2011	MN	1	7	44	**0.023**
April 2011		0	7	43	0.000
May 2011	AL	1	8	43	**0.023**
June 2011		0	8	42	0.000
July 2011		0	8	42	0.000
August 2011		0	8	42	0.000
September 2011		0	8	42	0.000
October 2011		0	8	42	0.000
November 2011		0	8	42	0.000
December 2011		0	8	42	0.000
January 2012	GA, IN, WY	3	11	42	**0.071**
February 2012	AK, MO, UT	3	14	39	**0.077**
March 2012		0	14	36	0.000
April 2012		0	14	36	0.000
May 2012		0	14	36	0.000
June 2012		0	14	36	0.000
July 2012		0	14	36	0.000
August 2012		0	14	36	0.000
September 2012	MI	1	15	36	**0.028**
October 2012		0	15	35	0.000
November 2012	IL	1	16	35	**0.029**
December 2012		0	16	34	0.000
January 2013	AZ, FL, TX	3	19	34	**0.088**
February 2013	KS	1	20	31	**0.032**
March 2013		0	20	30	0.000
April 2013	NC	1	21	30	**0.033**
May 2013	LA, NY, PA	3	24	29	**0.100**
June 2013	NJ	1	25	26	**0.037**
July 2013	OH	1	26	25	**0.038**
August 2013		0	26	24	0.000
September 2013		0	26	24	0.000
October 2013		0	26	24	0.000
November 2013		0	26	24	0.000
December 2013		0	26	24	0.000

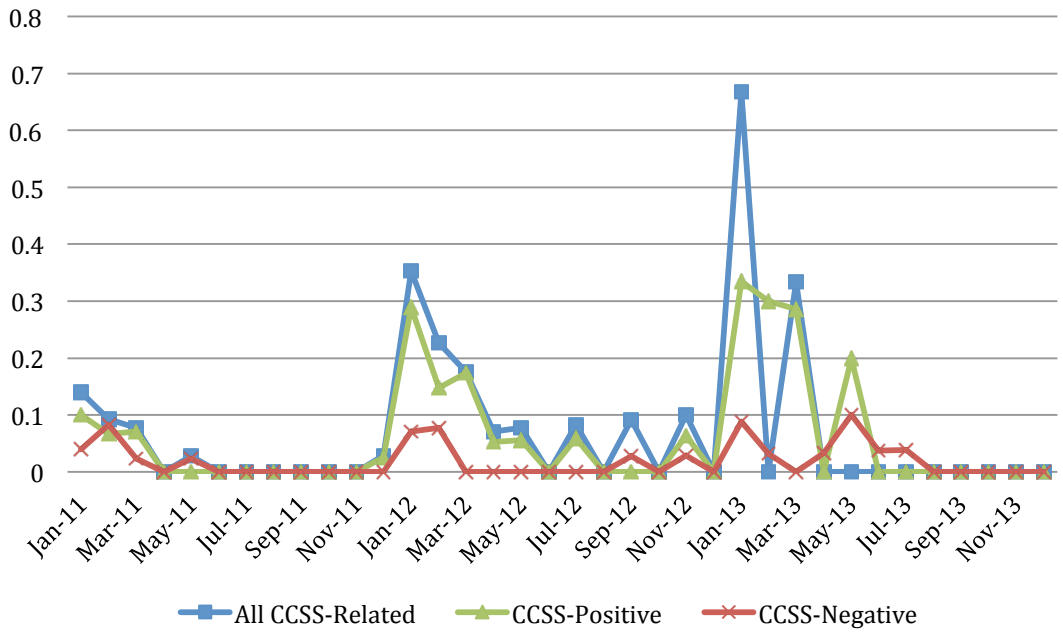
Table 3: Monthly Risk Sets, Hazard Rates, and States Introducing CCSS-Positive Legislation

Time Period	States Introducing CCSS-Positive Legislation	Number of Introductions	Cumulative Introductions	Risk Set	Hazard Rate
January 2011	CA, HI, MN, OR, WA	5	5	50	**0.100**
February 2011	AR, NV, OK	3	8	45	**0.067**
March 2011	GA, ME, NC	3	11	42	**0.071**
April 2011		0	11	39	0.000
May 2011		0	11	39	0.000
June 2011		0	11	39	0.000
July 2011		0	11	39	0.000
August 2011		0	11	39	0.000
September 2011		0	11	39	0.000
October 2011		0	11	39	0.000
November 2011		0	11	39	0.000
December 2011	UT	1	12	39	**0.026**
January 2012	AZ, CO, DE, FL, IN, KY, MD, NM, TN, VT, WV	11	23	38	**0.289**
February 2012	CT, IA, MS, WY	4	27	27	**0.148**
March 2012	AL, LA, NJ, OH	4	31	23	**0.174**
April 2012	PA	1	32	19	**0.053**
May 2012	MT	1	33	18	**0.056**
June 2012		0	33	17	0.000
July 2012	MA	1	34	17	**0.059**
August 2012		0	34	16	0.000
September 2012		0	34	16	0.000
October 2012		0	34	16	0.000
November 2012	MI	1	35	16	**0.063**
December 2012		0	35	15	0.000
January 2013	KS, NE, NY, ND, VA	5	40	15	**0.334**
February 2013	IL, MO, TX	3	43	10	**0.300**
March 2013	AK, ID	2	45	7	**0.286**
April 2013		0	45	5	0.000
May 2013	NH	1	46	5	**0.200**
June 2013		0	46	4	0.000
July 2013		0	46	4	0.000
August 2013		0	46	4	0.000
September 2013		0	46	4	0.000
October 2013		0	46	4	0.000
November 2013		0	46	4	0.000
December 2013		0	46	4	0.000

These tables, and accompanying **Figure 5** show that while hazard rates have not steadily increased each month over time, there has been a general upward trend, with spikes in the hazard rate generally coinciding with months state legislatures are in session. January 2012 was a period with a very high hazard rate relative to other months

studied, and January 2013 saw another large spike. The highest hazard rates observed in the dataset were in January 2013 for all CCSS-related legislation introductions and for CCSS-positive legislation introductions, and May 2013 for CCSS-negative legislation introductions. The last instances in my dataset of first introductions of legislation in any of these three cases occurred in July 2013 with CCSS-negative legislation introductions.

Figure 5: Hazard Rates from Risk Sets for First Introductions of CCSS-Related Legislation



The dramatic recent increase in hazard rates over time is further illustrated in **Tables 4-6**, which show the hazard rate calculated for each year included in the dataset for all CCSS-related legislation, for CCSS-negative legislation, and for CCSS-positive legislation. In each case, hazard rates have steadily increased over the three years covered, with a sharp increase between 2012 and 2013 for CCSS-negative legislation and between 2011 and 2012 for all CCSS-related legislation and for CCSS-positive legislation. Between 2011 and 2012, the hazard rate for first introductions of CCSS-negative legislation increased by about 18.75%, while the hazard rate from 2012 to 2013

increased by 54.74%. This shows that the probability of the introduction of CCSS-negative legislation in a state legislature has increased dramatically in just the last year.

Table 4: Yearly Risk Sets, Hazard Rates, and States Introducing CCSS-Related Legislation

Time Period	States Introducing CCSS-Related Legislation	Number of Introductions	Cumulative Introductions	Risk Set	Hazard Rate
2011	CA, HI, MN, NH, OR, SD, WA, AR, NV, OK, SC, GA, ME, NC, AL, UT	16	16	50	0.320
2012	AZ, CO, DE, FL, IN, KY, MD, NM, TN, VT, WV, WY, AK, CT, IA, MS, MO, LA, NJ, OH, PA, MT, MA, MI, IL	25	41	34	0.735
2013	KS, NE, NY, ND, TX, VA, ID	7	48	9	0.778

Table 5: Yearly Risk Sets, Hazard Rates, and States Introducing CCSS-Negative Legislation

Time Period	States Introducing CCSS-Negative Legislation	Number of Introductions	Cumulative Introductions	Risk Set	Hazard Rate
2011	NH, SD, OK, OR, SC, WA, MN, AL	8	8	50	0.160
2012	GA, IN, WY, AK, MO, UT, MI, IL	8	16	42	0.190
2013	AZ, FL, TX, KS, NC, LA, NY, PA, NJ, OH	10	26	34	0.294

Table 6: Yearly Risk Sets, Hazard Rates, and States Introducing CCSS-Positive Legislation

Time Period	States Introducing CCSS-Negative Legislation	Number of Introductions	Cumulative Introductions	Risk Set	Hazard Rate
2011	AR, CA, GA, HI, ME, MN, NV, NC, OK, OR, UT, WA	12	12	50	0.240
2012	AL, AZ, CO, CT, DE, FL, IN, IA, KY, LA, MD, MA, MI, MS, MT, NJ, NM, OH, PA, TN, VT, WV, WY	23	35	38	0.605
2013	AK, ID, IL, KS, MO, NE, NY, ND, TX, VA	10	45	15	0.667

The diffusion of introduction of CCSS-negative legislation across states is illustrated in **Table 7**, which shows the calculation of average proportion of adjacent adopters (APAA) over the time period in which diffusion occurred. The APAA for each period of diffusion was calculated by ranking all states by their order of introduction of

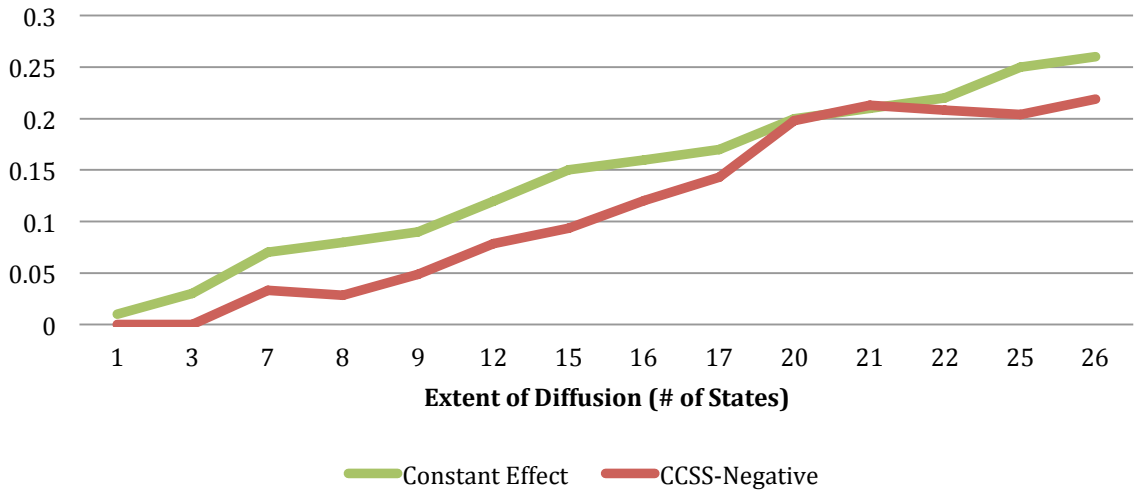
CCSS-negative legislation, calculating the proportion of neighboring states that had previously seen the introduction of CCSS-negative legislation, then calculating the running average of these proportions over time by dividing the cumulative proportion of introductions by the number of previous introductions. This calculation comes from the method introduced by Mooney (2001) in his attempt to empirically assess the regional effect on a single policy's diffusion.

Table 7: Average Proportions of Adjacent Adopters (APAA) for CCSS-Negative Legislation Introductions

State	Time Period	Extent of Diffusion	Adjacent Adopters (Introductions)	Proportion of Adopters (Introductions)	APAA
New Hampshire (NH)	1	1	0	0.00	0.0000
South Dakota (SD)	1	1	0	0.00	0.0000
Oklahoma (OK)	2	3	0	0.00	0.0000
Oregon (OR)	2	3	0	0.00	0.0000
South Carolina (SC)	2	3	0	0.00	0.0000
Washington (WA)	2	3	0	0.00	0.0000
Minnesota (MN)	3	7	1	0.20	0.0333
Alabama (AL)	5	8	0	0.00	0.0286
Georgia (GA)	13	9	2	0.40	0.0750
Indiana (IN)	13	9	0	0.00	0.0250
Wyoming (WY)	13	9	1	0.17	0.0458
Alaska (AK)	14	12	0	0.00	0.0697
Missouri (MO)	14	12	1	0.13	0.0811
Utah (UT)	14	12	1	0.17	0.0848
Michigan (MI)	21	15	1	0.25	0.0935
Illinois (IL)	23	16	3	0.50	0.1206
Arizona (AZ)	25	17	1	0.20	0.1255
Florida (FL)	25	17	2	1.00	0.1755
Texas (TX)	25	17	1	0.25	0.1286
Kansas (KS)	26	20	2	0.50	0.1978
North Carolina (NC)	28	21	2	0.50	0.2129
Louisiana (LA)	29	22	1	0.33	0.2187
New York (NY)	29	22	0	0.00	0.2028
Pennsylvania (PA)	29	22	0	0.00	0.2028
New Jersey (NJ)	30	25	2	0.50	0.2037
Ohio (OH)	31	26	3	0.60	0.2189

This table illustrates the running average of neighboring states that had previously seen introductions of CCSS-negative legislation. Proportion of neighboring states was calculated here and in other variables based on Berry & Berry's (1990) list of state neighbors. In this list, states are assumed to be neighbors of all states that share a border and the pairs of New Jersey and Maryland and Massachusetts and Maine are treated as neighbors. By calculating these values, it is possible to see where regional effects may have had an impact on the diffusion of CCSS-negative legislation introduction.

Figure 6: Average Proportions of Adjacent Adopters (APAA) for CCSS-Negative Legislation Introductions



Results of the APAA calculation are consolidated and shown in **Figure 6** along with an estimated "constant effect" that shows an approximation of what APAA would look like if regional effects were not a factor in CCSS-negative legislation introduction This constant effect was informed by Mooney's (2001) simulated regional effect APAA calculations. The signal of regional diffusion effects to look for in this figure is when the calculated APAA trend line goes above the estimated constant effect trend line. When comparing the two lines on **Figure 6**, it appears that regional diffusion effects did, in fact, cross the constant effects line after the extent of diffusion reached 21 states, which

occurred in April 2013. Although the calculated APAA trend line falls below the constant effects line for most of the time period covered, the lines are very close together, suggesting a continuation of some level of regional influence. The noticeable jump in the calculated APAA scores beginning in January 2013 (when the extent of diffusion had reached 17 states) suggests that, consistent with the sharp increase in hazard rates in 2013 for first introductions of CCSS-negative legislation, regional diffusion effects for first introductions of these pieces of legislation became significant beginning in 2013.

In order to more clearly visualize the effects of my variables on the introduction of CCSS-negative legislation, I created several maps to make visual comparisons of variables easier on a state-by-state basis and to show the spread across states over time of introduction of these policies.

Before diving into deep analysis of the data, I created three visualizations to show the basic frequency of overall CCSS-related legislation and of CCSS-negative legislation. First, **Figure 7** shows the cumulative number of all CCSS-related pieces of legislation introduced in each state. This map shows how heavily each state legislature focused on CCSS-related legislation over the time period covered by my dataset. Lighter-colored states are those with fewer overall introductions of CCSS-related legislation and darker-colored states are those with more introductions of CCSS-related pieces of legislation. Second, **Figure 8** shows the cumulative number of pieces of CCSS-negative legislation introduced in each state. Similar to **Figure 7**, lighter-colored states are those with fewer introductions of CCSS-negative legislation and darker-colored states are those with more introductions of CCSS-negative legislation. States with no introductions of CCSS-negative legislation are left blank. To further illustrate the variation across states of the

general support (or lack of support) shown by state legislatures for the CCSS, **Figure 9** shows the percent of all CCSS-related legislation introduced that was CCSS-negative. Lighter-colored states had a lower percentage of CCSS-negative legislation introduced and darker-colored states had higher percentages of CCSS-negative legislation introduced.

Figure 7: Total Number of CCSS-Related Bill Introductions (2011-2013)

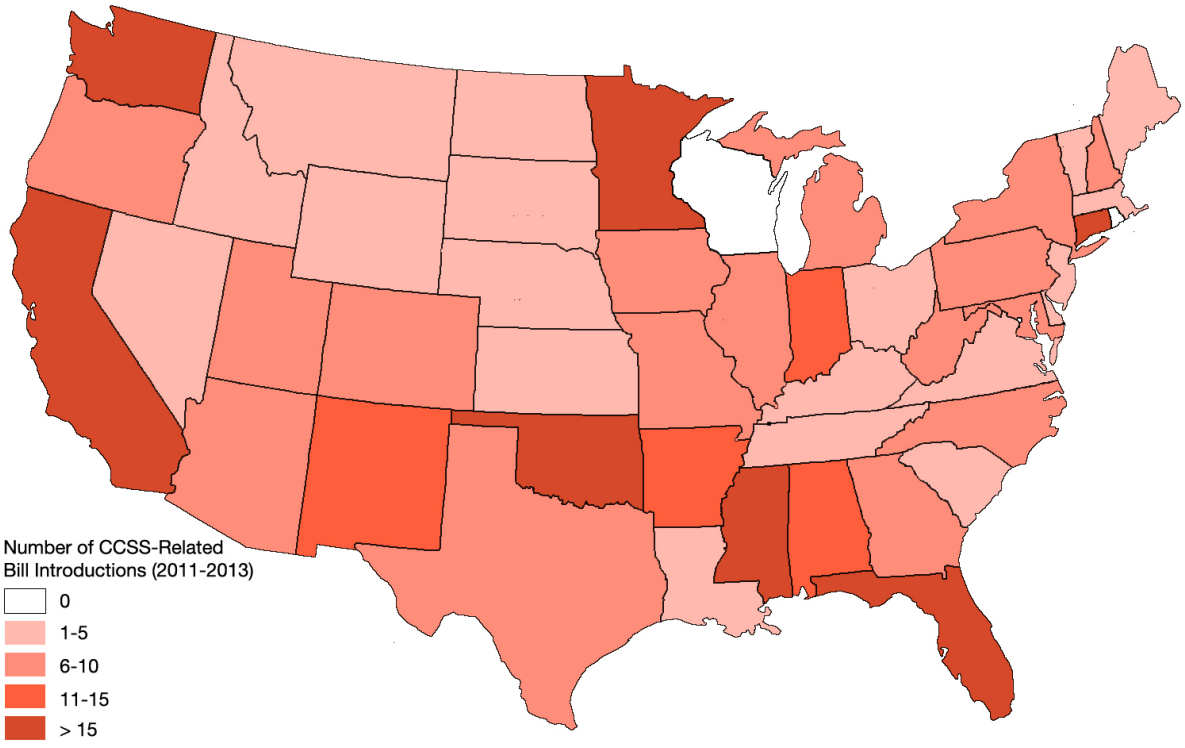


Figure 8: Total Number of CCSS-Negative Bill Introductions (2011-2013)

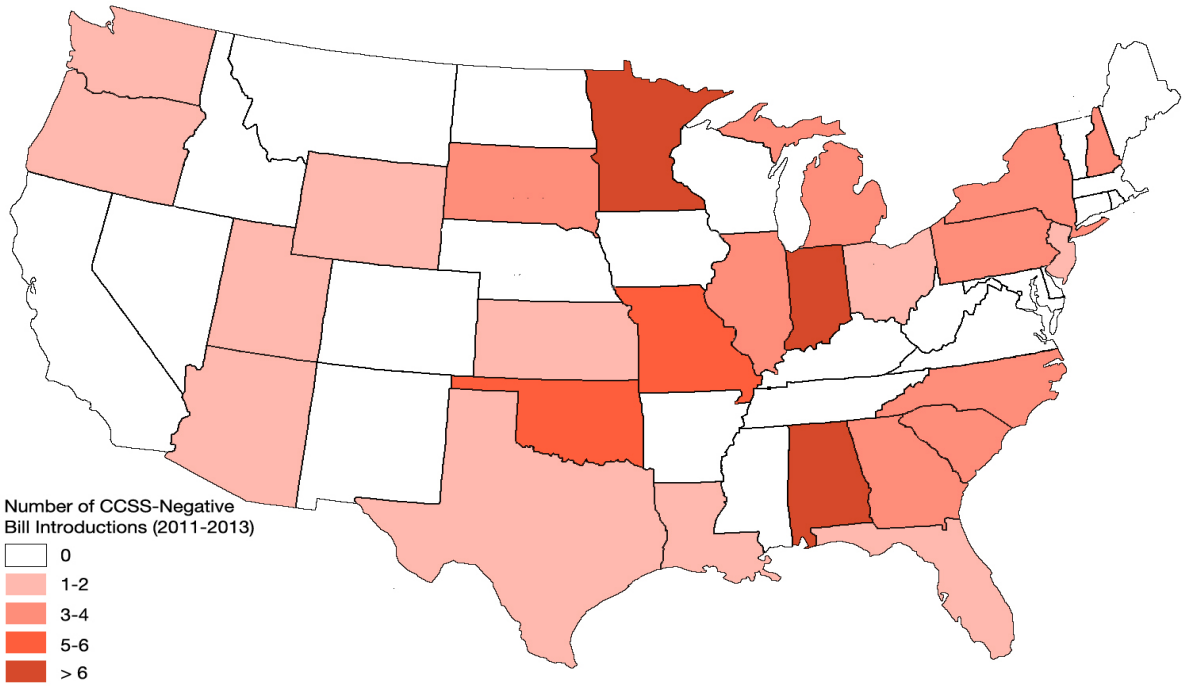


Figure 9: CCSS-Negative Bill Introductions as Percent of All CCSS-Related Bill Introductions (2011-2013)

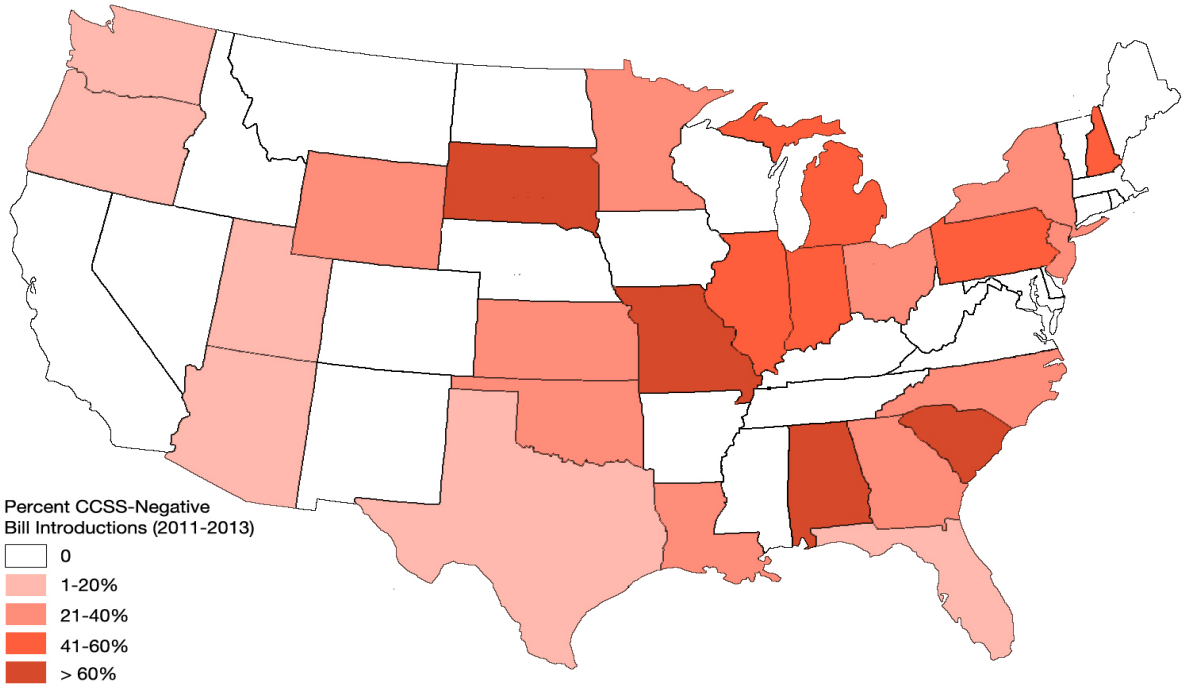


Figure 10: Year of First CCSS-Negative Bill Introduction (2011-2013)

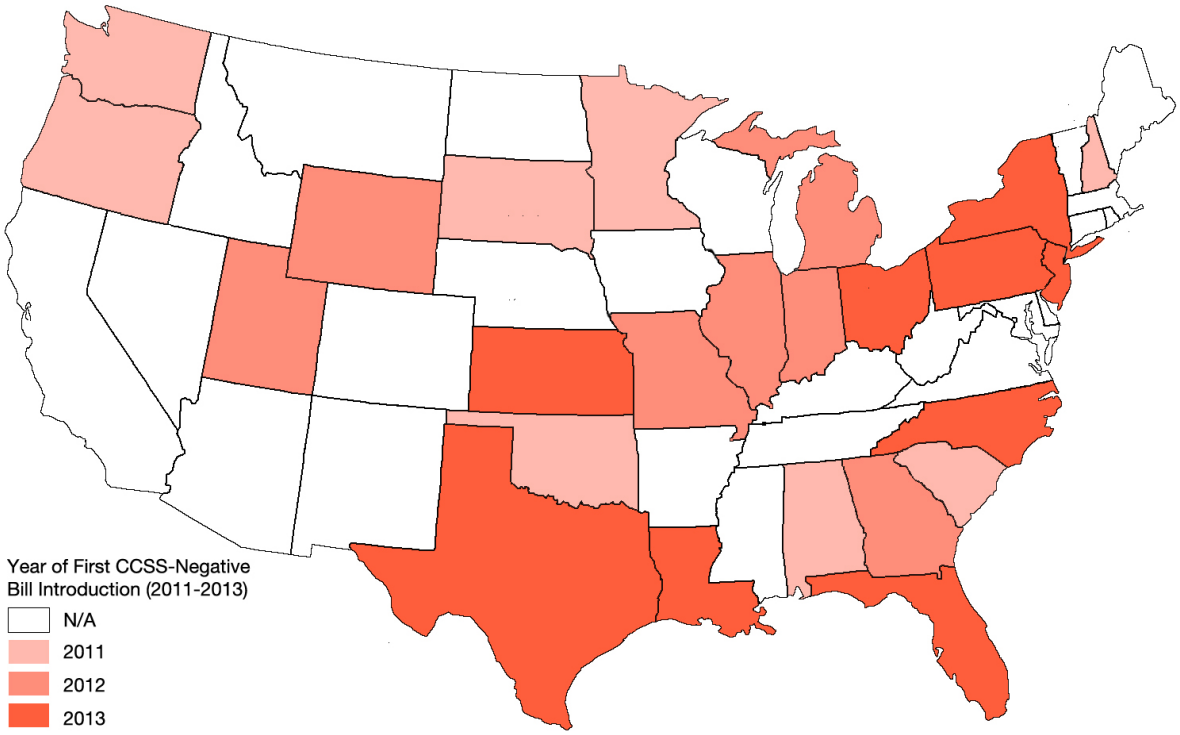


Figure 10 shows an illustration of the main dependent variable used in my analysis. This map shows the year of the first introduction of CCSS-negative legislation in each state. States that did not see the introduction of CCSS-negative legislation in the time period studied are left blank, the states with the earliest introductions of CCSS-negative legislation are light colors, and the states with the latest introductions of CCSS-negative legislation are the darkest colors. From looking at this map, it is clear that the majority of the early introductions of CCSS-negative legislation happened in the northwest and central United States, while later adoptions are concentrated in the northeast region of the country. The rough clustering of states and their times of first

introduction of CCSS-negative legislation provides support for the idea of regional effects at play in the diffusion of introduction of this legislation.

Study Hypotheses

To further explore the motivations behind introductions of CCSS-related bills, I tested seven hypotheses related to factors that could contribute to CCSS-negative bill introductions. These hypotheses address both internal factors in states and external diffusion effects that could impact the likelihood of CCSS-related legislation introductions in a given state legislature.

Hypothesis 1: States with higher levels of educational attainment will be more likely to see CCSS-negative legislation introduced in their state.

Educational attainment is an internal measure of the "innovativeness" of a state that could impact the policies adopted and the legislation introduced. In general, variation in levels of socioeconomic development is associated with variation in state policies (Walker, 1969; Dawson & Robinson, 1963). McLendon et al. (2006) extend this relationship between socioeconomic development and policy variation to explore the specific effects of educational attainment as a measure of a state's socioeconomic development. Here, I hypothesize that states with higher levels of educational attainment already have relatively high-quality policies regarding education and thus legislators will not feel that keeping the CCSS is necessary for their continued good performance in education.

Hypothesis 2: States where elected officials were responsible for adopting the Common Core will be less likely to see CCSS-negative legislation introduced in their state legislatures.

This hypothesis is based on the idea that policies created or adopted by elected officials will have more popular support. Theoretically, elected officials represent the people who elected them. This means that if the political system is efficient, everyone's preferences will be represented in the creation or adoption of new policies. Here, I hypothesize that in cases where the decision to adopt the Common Core State Standards was made by elected officials in a state, there will be fewer introductions of CCSS-negative legislation in that state's legislature.

Hypothesis 3: States where there are active PIE Network member organizations will be less likely to see CCSS-negative legislation introduced in their state legislatures.

The PIE (Policy Innovators in Education) Network is a group of 45 education reform organizations spread across 28 states that serves to connect these organizations to policy partners and advocacy partners in their states. PIE Network member organizations share a set of common commitments and objectives, one of which is to "Advance college-and career-ready standards across the curriculum that are at least as rigorous as the Common Core State Standards."[3] Because PIE Network member organizations are committed to rigorous standards, and because their specific objectives mention the Common Core State Standards by name, I expect the presence of these organizations in a given state to decrease the likelihood that CCSS-negative legislation will be introduced in that state.

[3] A full list of PIE Network commitments can be found here: http://pie-network.org/why/network-commitments

Hypothesis 4: States with a Republican-controlled legislature will be more likely to see the introduction of CCSS-negative legislation.

This hypothesis is based on the idea that a unified legislature will be better able to avoid the obstacles to innovation that are faced by non-unified legislatures. Furthermore, Republican-controlled legislatures should be more likely to see the introduction of CCSS-negative legislation because many conservative groups have expressed negative opinions of the CCSS[4] and the Republican National Committee has passed a resolution denouncing the Common Core.[5] This combination of partisanship and unified control should theoretically lead to a higher probability of the introduction of CCSS-negative legislation.

Hypothesis 5: States with a Republican governor will be more likely to see the introduction of CCSS-negative legislation.

This hypothesis is similar to Hypothesis 4 in that it is focused on party control of each state. Considering the party identification of the state governor is a more indirect consideration of the obstacles to innovation, as the governor has veto power but cannot specifically block the introduction of legislation upfront with more than a veto threat.

Hypothesis 6: States with higher proportions of more innovative neighbors (and thus lower Race to the Top scores) will be more likely to see the introduction of CCSS-negative legislation.

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[4] For example the conservative group *American Principles Project* has established an anti-Common Core website (http://www.fightcommoncore.com) to "provide information about the dangers of centralizing education through the Common Core State Standards and the work that is being done at the state and federal levels to repeal it."

[5] Full text of the RNC resolution can be found here: https://docs.google.com/file/d/0B558bfJRCLuuOXdsVXJmZy1IRms

This hypothesis is based on both internal and external determinants. Here I hypothesize that state that has a high proportion of more innovative neighbors (as measured by state RTTT scores), and thus a lower RTTT score, will be more likely to see the introduction of CCSS-negative legislation. There are two reasons behind this hypothesis. First, it is entirely possible that a state may have adopted the CCSS just to check off a box on their RTTT application and, after receiving a low score, started to move away from the CCSS. Similarly, a second reason could be that states seeing their adjacent neighbors receive higher RTTT scores may move away from the CCSS in an attempt to innovate away from the restrictions placed on states by the RTTT application criteria.

Hypothesis 7: States with higher proportions of adjacent neighbors who have previously seen the introduction of CCSS-negative legislation will be more likely to see CCSS-negative legislation introduced in their state legislatures.

This hypothesis is based on the relationship between geography and state policy diffusion that has been explored by many researchers (Berry & Berry, 1990; Mintrom, 1997). According to these studies, one of the most prevalent diffusion models that exists is that in which states are most likely to look to their immediate neighbors for policy innovations. In the Berry & Berry's classic 1990 study of state lottery adoptions, they found that a state's probability of adopting a lottery was positively related to the number of bordering states that had previously adopted a lottery. I use this same basic idea in this hypothesis and assume that a state's likelihood of seeing an introduction of CCSS-negative legislation is positively related to the number of bordering states in which CCSS-negative legislation had been introduced in an earlier time period.

Data and Methods

Variables and Measures

The dataset used in this analysis includes data for all 50 states; however, Alaska and Hawaii were dropped from the regression analysis, consistent with similar state policy diffusion studies (Berry & Berry, 1990). These were excluded from regression analysis because their distance from the contiguous 48 states made assessment of diffusion effects impossible, leading to missing data for variables calculated based on neighboring state effects. Nebraska, Texas, and Virginia were also included in the dataset because, though they had not adopted the Common Core State Standards during the time period of my study, their state legislatures still saw introductions of CCSS-related bills.

The dependent variables being analyzed are introductions of CCSS-related legislation in a state legislature. My analysis uses both counts of CCSS-related bills introduced and binary measures of whether or not a CCSS-related bill was introduced in a given time period, and uses these variables to study both CCSS-negative bills and CCSS-positive bills in addition to all CCSS-related bills. My hypotheses are largely focused on introductions of CCSS-negative legislation, so the measures of CCSS-positive legislation introductions and overall CCSS-related legislation introductions serve mostly as points of comparison against the CCSS-negative models. This data was collected from a dataset maintained by the National Conference of State Legislatures (NCSL) that tracks state legislation addressing college- and career-readiness state standards, including the

Common Core State Standards.[6] This data was cross-checked against and supplemented by data from Open States, a website maintained by the Sunlight Foundation that aggregates information about all bills introduced in state legislatures.[7]

The legislation tracked in the NCSL dataset is categorized by legislative objective.[8] Each bill was labeled with *at least* one legislative objective. For the purposes of my analysis, I define "CCSS-negative" legislation as bills labeled as "Legislative Disapprobation Legislation" or "Revocation Legislation." Legislative disapprobation bills are those that express formal legislative disapproval of the CCSS but stop short of requiring revocation of the CCSS and revocation bills are those that require the state to revoke previous adoption of the CCSS. These two categories of legislative objective are grouped together for the purposes of this analysis because these were the two "negative" categories available and combining them created a more complete view of states' movement away from the CCSS. The total number of observations of introduction of CCSS-negative legislation in states was 57 bills in 26 states in the years 2011 to 2013.

I define "CCSS-positive" as all bills that are *not* labeled as "Legislative Disapprobation Legislation" or "Revocation Legislation." Although in reality these bills range from neutral to positive on Common Core issues, I chose to group them all together under the "CCSS-positive" label for two reasons. First, I wanted to create a simple

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[6] This data and information about the specific legislative objectives covered by the included legislation was retrieved from the NCSL College- and Career-State Sate Standards State Legislative Update: http://www.ccsslegislation.info

[7] Data from Open States can be viewed here: http://openstates.org/

[8] The legislative objective labels in this dataset are: Appropriation Legislation; Assessment Legislation, Creation of Task Force, Formal Evaluation, Review, or Study; College- and Career- Readiness Legislation; Curriculum (Instructional Materials) Legislation; Educator-Related Legislation; High School Graduation Requirements Legislation; Higher Education Legislation; Legislative Disapprobation Legislation; Other Misc. Legislation; and Revocation Legislation.

comparison for CCSS-negative bills against all other bills, and second, I wanted to simplify my analysis and avoid incorrectly classifying bills into one of many groups. The total number of observations of introduction of CCSS-positive legislation in states was 348 bills in 48 states in the years 2011 to 2013.

Two independent variables were included in the dataset to account for the political environment of each state and state legislature. *Republican Governor* is a dummy variable indicating whether a Republican held the governor's office in a state in a given month. *Republican Legislature* is a dummy variable indicating whether the state legislature was under Republican control in a state in a given month. Data for both of these variables was collected from the National Conference of State Legislatures and from state government websites.

RTTT Score and *% Innovative Neighbors* are independent variables included in the analysis to account for the performance of each state in the Race to the Top grant competition and the relative innovativeness of each state as compared to its neighbors. Data for the Race to the Top scores was collected from the Department of Education. The most recent score received by each state was used in this dataset to allow for analysis of only the most up-to-date measure of innovativeness. Because both Round 1 and Round 2 scores were released in 2010 (before the time period covered by my analysis), most scores used in this variable are the more recent Round 2 scores. If states did not submit Round 2 applications, the Round 1 score was used. The *% Innovative Neighbors* variable was calculated for each state by finding the percent of neighboring states that received a higher Race to the Top score.

One independent variable was included in the dataset as a measure of educational attainment. *H.S. Educational Attainment* measures the percentage of a state's population age 25 and higher that has completed high school. Data for this variable was collected from the United States Census Bureau. Due to limitations of the data available for state-level measures, 2009 values (collected based on data from the 2010 Census) for educational attainment are used for each state.

Three variables were created to measure percentages of state neighbors with CCSS-related legislation introduced in previous time periods. The *All Previous Adjacent Adopters* independent variable measures the percentage of a state's neighbors that had any CCSS-related legislation introduced in their state's legislature in an earlier time period, the *Negative Previous Adjacent Adopters* independent variable measures the percentage of a state's neighbors that had already seen the introduction of CCSS-negative legislation in their state legislature in an earlier time period, and the *Positive Previous Adjacent Adopters* independent variable measures the percentage of a state's neighbors that had already seen the introduction of CCSS-positive legislation in their state legislature in an earlier time period. These variables were constructed based on the dates of introduction of all CCSS-related legislation and of CCSS-negative and CCSS-positive legislation in each individual state and its adjacent neighbors.

PIE Network Number is an independent variable counting the number of PIE Network organizations that exist in each state. This variable was constructed as a count rather than a binary variable because I assume that the number of PIE Network organizations in each state affects the overall influence and visibility of the PIE Network's commitments and objectives relating to the Common Core State Standards.

Information about the member organizations in each state was collected from the PIE Network website.[9]

The *Elected Adopter* independent variable was constructed to capture whether the party in each state responsible for adopting the Common Core State Standards was elected by a popular vote or was composed of appointed officials or career bureaucrats. In most states, either the state Department of Education (or equivalent) or the state Board of Education (or equivalent) was responsible for making the decision to adopt the Common Core. Using data provided by the Common Core State Standards website[10], I collected information about the adopting body in each state. If the adopting body was comprised of at least 50% elected officials, I considered the state to have an "Elected Adopter" of the Common Core.

An independent variable indicating whether or not the state legislature was in session was also included in the analysis. Although it is possible that bills could be introduced in a state while the legislature is not in session, the vast majority of bills will be introduced during in-session times. The introduction of any legislation in a state is heavily dependent upon whether or not the legislature is in session, so controlling for this variation in legislative activity within each year was important.

Research Methods

I use nine models (three sets of three models) in my analysis of CCSS-related bill introductions. First, I use ordinary least squares (OLS) regression to examine the count of CCSS-related bill introductions in each time period for all CCSS-related bills, all CCSS-negative bills, and all CCSS-positive bills. Second, I use logit models to examine binary

[9] http://www.pie-network.org/who/network-members
[10] http://www.corestandards.org/

dependent variables for introductions of all CCSS-related bills, all CCSS-negative bills, and all CCSS-positive bills. Third, I use logit models to examine first introductions of all CCSS-related bills, CCSS-negative bills, and CCSS-positive bills in each state. For the purposes of this analysis, time is divided into discrete units: in this case, months in which each state may or may not have CCSS-negative legislation introduced in their legislature.

Using these approaches allows for the inclusion of both internal state characteristics and external factors related to neighboring states in the model, which allows for a more complete view of the factors pushing states toward specific policies, rather than just focusing on what is happening within a single state and assuming the state is not influenced by its surroundings.

The purpose of using these three sets of models was to allow for comparison of how certain factors affect the *number* of CCSS-related bills introduced in each time period, *whether or not* any CCSS-related bills were introduced in each time period, and when the very *first* CCSS-related bill is introduced in each state legislature. By using these three sets of three models, I am able to draw conclusions about how my independent variables impact the previously mentioned outcomes for all CCSS-related bills, for CCSS-negative bills, and for CCSS-positive bills both within each set of models (e.g. examining differences in all CCSS-related, CCSS-negative, and CCSS-positive bill introductions in the bill count models) and across sets of models (e.g. examining differences in CCSS-negative bill introductions across the CCSS-negative count model, CCSS-negative binary model, and CCSS-negative first introduction model).

My first two sets of models (count models and binary models) provide an overall view of CCSS-related bill introductions over the time period of my study. The third set of

models (first introductions models) provides a slightly different view of CCSS-related bill introductions. These models are based on Event History Analysis (EHA) models, as described in Berry & Berry (1990). These introductions of legislation are assumed to be non-repeatable events. Although these events are definitely repeatable in actuality, making this assumption fulfills the goals of this analysis because these models are intended to capture the first signs of movement toward or away from the CCSS in each state. This assumption further simplifies the analysis by allowing for the creation of a risk set and the calculation of hazard rates for each time period. The risk set includes the states "at risk" of introduction of CCSS-related legislation in each month. The risk set begins when the first state experiences the event and states are removed from the dataset after the period in which CCSS-related legislation is introduced in their legislature. For example, the CCSS-negative risk set begins when the first state experiences the event (New Hampshire and South Dakota in January 2011) and states are removed from the dataset after the period in which CCSS-negative legislation is introduced in their state legislature. In the latest time period covered by the dataset (December 2013), only 24 states remain, as the observed event occurred in 26 of the 50 states over the course of the observed time span. See **Tables 1-3** for risk set numbers by month. Separate risk sets were compiled for all CCSS-related legislation, for CCSS-negative legislation, and for CCSS-positive legislation.

An important consideration to make when viewing results of the analysis performed on the risk set data is that the EHA models in the existing literature are all focused on actual *adoptions* of policy, while these models only address the first *introduction* of a potential policy in a state legislature. Additionally, my independent

variables of most interest are focused on movement away from the CCSS with introductions of CCSS-negative legislation, while other EHA studies seek to explain the adoption of new policies. These are important caveats to keep in mind while viewing the results of my analysis.

Analysis and Results

The statistical results of my analysis of introductions of CCSS-related legislation are reported numerically in **Tables 8-10** and graphically in **Figures 11-13.** I will first give an overview of the results of my nine models, and then break the results down in more detail for each of my hypotheses.

Models 1-3: Counts of CCSS-Related Legislation Introductions

My first set of three models (**Table 8** and **Figure 11**) focuses on numbers of introductions of CCSS-related legislation in each state in each time period. The dependent variables assessed in these models are total number of CCSS-related bill introductions in each time period (Model 1), number of CCSS-negative bill introductions in each time period (Model 2), and number of CCSS-positive bill introductions in each time period (Model 3).

H.S. Educational Attainment is negative and statistically significant in all three of these models, meaning in each case (overall, negative, and positive), higher levels of high school educational attainment in a state lead to lower numbers of CCSS-related bill introductions. The *Elected Adopter* variable is statistically significant only in Model 2, where the coefficient is negative, so states with elected adopters of the Common Core State Standards will see fewer introductions of CCSS-negative bills. *PIE Network*

Number is positive and statistically significant in Model 1 and in Model 3, so higher numbers of PIE Network organizations in a state lead to higher overall numbers of CCSS-related bills and higher numbers of CCSS-positive bills in a state. *Republican Legislature* is positive and statistically significant only in Model 2, so states with a Republican-controlled legislature have higher numbers of introductions of CCSS-positive legislation. The *Republican Governor* and *% Innovative Neighbors* variables are not statistically significant in any of these models.

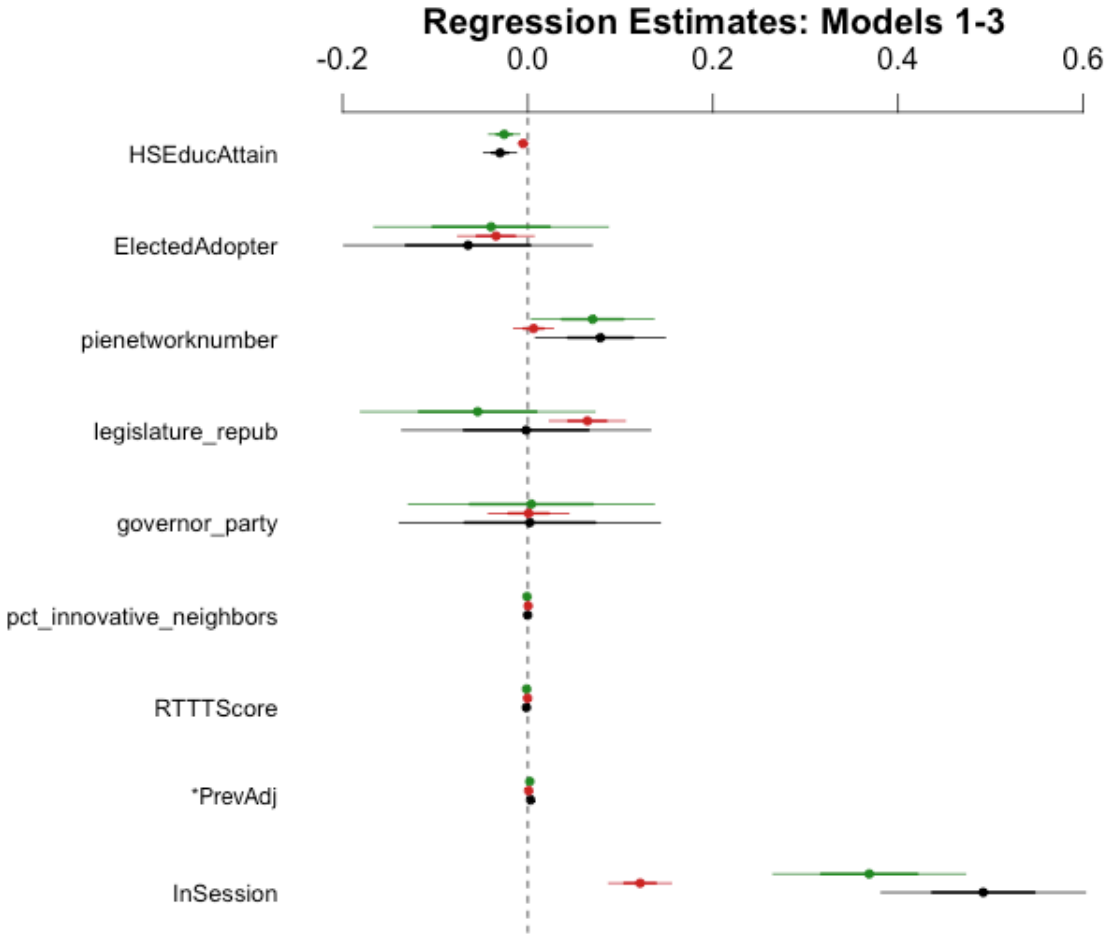
Table 8: Bill Introduction Counts Regressions

	Model 1 (All Bills)	**Model 2 (Negative Bills)**	**Model 3 (Positive Bills)**
Variable	**Coef. (SE)**	**Coef. (SE)**	**Coef. (SE)**
HSEducAttain	**-0.030*** **	**-0.005+**	**-0.026** **
	(0.009)	**(0.003)**	**(0.008)**
ElectedAdopter	-0.065	**-0.034+**	-0.040
	(0.067)	**(0.021)**	(0.063)
pienetworknumber	**0.078***	0.006	**0.070***
	(0.035)	(0.011)	**(0.033)**
legislature_repub	-0.002	**0.064** **	-0.054
	(0.067)	**(0.021)**	(0.063)
governor_party	0.002	0.001	0.004
	(0.070)	(0.022)	(0.066)
pct_innovative_neighbors	-0.000	0.000	-0.001
	(0.001)	(0.000)	(0.001)
RTTTScore	**-0.002** **	**-0.000+**	**-0.001** **
	(0.001)	**(0.000)**	**(0.000)**
AllPrevAdj	**0.003*** **		
	(0.001)		
NegPrevAdj		**0.001** **	
		(0.000)	
PosPrevAdj			**0.002** **
			(0.001)
InSession	**0.492*** **	**0.121*** **	**0.369*** **
	(0.055)	**(0.017)**	**(0.052)**
(Intercept)	**2.918*** **	**0.456+**	**2.595** **
	(0.863)	**(0.261)**	**(0.814)**
Number of Observations	1475	1475	1475
Multiple R2	0.069	0.051	0.049
Adjusted R2	0.063	0.045	0.043

Signif. Codes: *** p < 0.001, ** p < 0.01, * p < 0.05, + p < 0.10

RTTT Score is statistically significant and negative (but very close to zero) in each of these three models, which shows that Race to the Top Scores have very small, if any, negative impact on the number of CCSS-related bills introduced in each state. The *Previous Adjacent Adopters* variables are statistically significant and positive (but very close to zero) in each of these three models, showing that the percent of adjacent states with introductions of CCSS-related legislation (overall, negative, and positive) in previous time periods has a very small positive impact on the number of CCSS-related bills introduced in a state in a given time period.

Figure 11: Bill Introduction Counts Regressions



Green = CCSS-positive bills; Red = CCSS-negative bills; Black = All CCSS-related bills
Dots represent coefficients and lines represent 95% confidence intervals.

Models 4-6: Binary CCSS-Related Legislation Introductions

My second set of three models (**Table 9** and **Figure 12**) focuses on whether or not there were any introductions of CCSS-related legislation in each state in each time period. The dependent variables assessed in these models are whether or not any CCSS-related bill introductions occurred in each time period (Model 4), whether or not any CCSS-negative bill introductions occurred in each time period (Model 5), and whether or not any CCSS-positive bill introductions occurred in each time period (Model 6).

H.S. Educational Attainment is negative and statistically significant in Model 4 and Model 6, meaning that for all CCSS-related bills and for specifically CCSS-positive bills, higher levels of high school educational attainment in a state lead to lower probabilities of these bill introductions occurring. The *Elected Adopter* variable is statistically significant only in Model 5, where the coefficient is negative, so states with elected adopters of the Common Core State Standards will be less likely to see introductions of CCSS-negative bills. The *PIE Network Number* variable is not statistically significant in any of these models. *Republican Legislature* is statistically significant in both Model 5 and Model 6, and the relationship is opposite for CCSS-negative bills and CCSS-positive bills. States with Republican-controlled legislatures will be more likely to see introductions of CCSS-negative legislation in any given time period, and states with Republican-controlled legislatures will be less likely to see introductions of CCSS-positive legislation in a given time period. The *Republican Governor* and *% Innovative Neighbors* variables are not statistically significant in any of these models. *RTTT Score* is statistically significant and negative (but very close to zero) in each of these three models, which shows that Race to the Top Scores have very small,

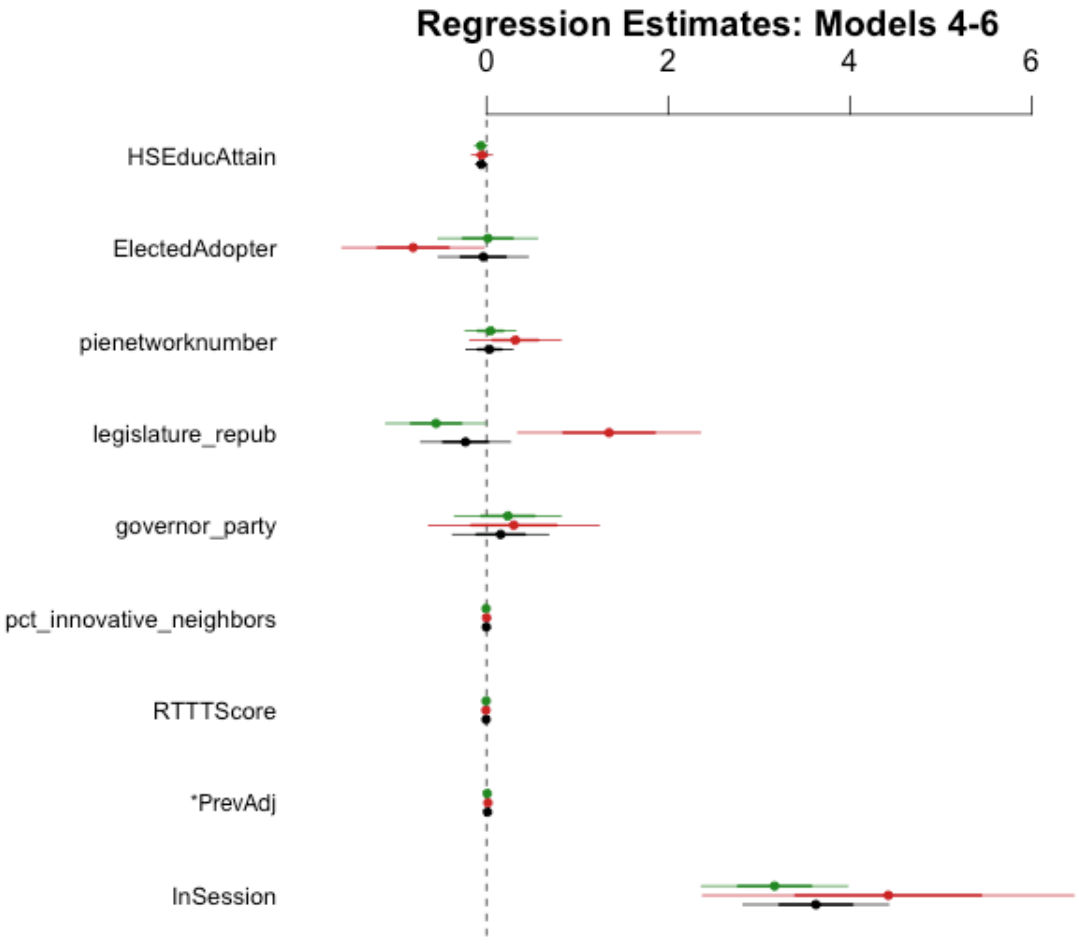
if any, negative impact on the likelihood of CCSS-related bill introductions in each state. The *Previous Adjacent Adopters* variables are statistically significant and positive (but very close to zero) in each of these three models, showing that the percent of adjacent states with introductions of CCSS-related legislation (overall, negative, and positive) in previous time periods has a very small positive impact on the likelihood of CCSS-related bill introductions in a state in a given time period.

Table 9: Bill Introduction Logistic Regressions

	Model 4 (All Bills)	**Model 5 (Negative Bills)**	**Model 6 (Positive Bills)**
Variable	**Coef. (SE)**	**Coef. (SE)**	**Coef. (SE)**
HSEducAttain	**-0.057+**	-0.051	**-0.061+**
	(0.032)	(0.057)	**(0.035)**
ElectedAdopter	-0.036	**-0.809***	0.014
	(0.247)	**(0.391)**	(0.273)
pienetworknumber	0.033	0.318	0.043
	(0.128)	(0.251)	(0.139)
legislature_repub	-0.231	**1.349****	**-0.555***
	(0.247)	**(0.502)**	**(0.277)**
governor_party	0.155	0.300	0.235
	(0.264)	(0.469)	(0.293)
pct_innovative_neighbors	-0.002	0.000	-0.005
	(0.004)	(0.006)	(0.004)
RTTTScore	**-0.005****	**-0.007****	**-0.005***
	(0.002)	**(0.003)**	**(0.002)**
AllPrevAdj	**0.011*****		
	(0.003)		
NegPrevAdj		**0.015***	
		(0.006)	
PosPrevAdj			**0.007***
			(0.003)
InSession	**3.626*****	**4.422*****	**3.141*****
	(0.401)	**(1.021)**	**(0.402)**
(Intercept)	1.444	-1.698	2.188
	(3.053)	(5.407)	(3.300)
Number of Observations	1475	1475	1475
AIC	787.12	345.45	696.56

Signif. Codes: *** p < 0.001, ** p < 0.01, * p < 0.05, + p < 0.10

Figure 12: Bill Introduction Logistic Regressions



Green = CCSS-positive bills; Red = CCSS-negative bills; Black = All CCSS-related bills
Dots represent coefficients and lines represent 95% confidence intervals.

Models 7-9: First Introductions of CCSS-Related Legislation

My third set of three models (**Table 10** and **Figure 13**) focuses on the first introductions of CCSS-related legislation in each state. The dependent variables assessed in these models are the first introductions of any CCSS-related legislation in each state (Model 7), the first introductions of CCSS-negative legislation in each state (Model 8), the first introductions of CCSS-positive legislation in each state (Model 9). This section

of analysis was performed using risk sets for each of the dependent variables of interest, so state-month observations were dropped after the time period of the first introduction of the legislation type of interest in each state.

H.S. Educational Attainment is negative and statistically significant in Model 7 and Model 9, meaning that for all CCSS-related bills and for specifically CCSS-positive bills, higher levels of high school educational attainment in a state lead to lower probabilities of these first bill introductions occurring in any given time period. The *Elected Adopter* variable is statistically significant in Model 7 and in Model 8, and in each case the coefficient is negative, so states with elected adopters of the Common Core State Standards will be less likely to see these first introductions of all CCSS-related bill and of CCSS-negative bills in a given time period. The *PIE Network Number* variable is not statistically significant in any of these models. *Republican Legislature* is statistically significant only in Model 8, where the coefficient is positive, so states will a Republican-controlled legislature will be more likely to see the first introduction of CCSS-negative legislation in a given time period. The *Republican Governor* and *% Innovative Neighbors* variables are not statistically significant in any of these models. *RTTT Score* is statistically significant and negative (but very close to zero) in each of these three models, which shows that Race to the Top Scores have very small, if any, negative impact on the likelihood of first introductions of CCSS-related bills in each state in a given time period. The *Previous Adjacent Adopters* variables are statistically significant and positive (but very close to zero) in Model 7 and Model 9, showing that the percent of adjacent states with introductions of all CCSS-related legislation or CCSS-positive legislation in previous time periods has a very small positive impact on the likelihood of

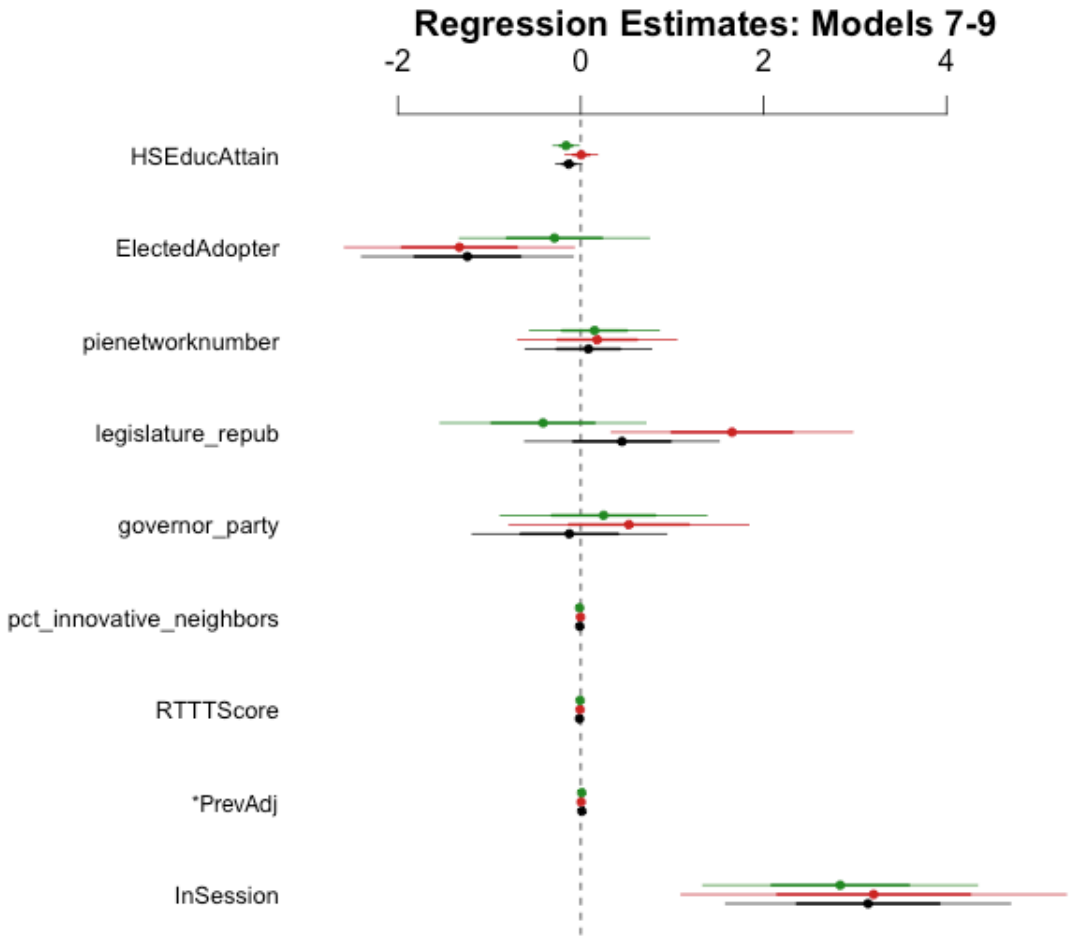
the first introduction of a CCSS-related bill overall or a CCSS-positive bill in a state in any given time period.

Table 10: Bill Introduction Risk Set Logistic Regressions

	Model 7 (All Bills)	**Model 8 (Negative Bills)**	**Model 9 (Positive Bills)**
Variable	**Coef. (SE)**	**Coef. (SE)**	**Coef. (SE)**
HSEducAttain	**-0.131+**	0.006	**-0.160***
	(0.071)	(0.089)	**(0.071)**
ElectedAdopter	**-1.240***	**-1.328***	-0.288
	(0.578)	**(0.628)**	(0.519)
pienetworknumber	0.084	0.180	0.150
	(0.345)	(0.435)	(0.354)
legislature_repub	0.450	**1.654***	-0.413
	(0.532)	**(0.660)**	(0.562)
governor_party	-0.123	0.527	0.250
	(0.532)	(0.655)	(0.565)
pct_innovative_neighbors	-0.011	-0.003	-0.013
	(0.008)	(0.009)	(0.009)
RTTTScore	**-0.014****	**-0.008+**	**-0.008***
	(0.004)	**(0.005)**	**(0.003)**
AllPrevAdj	**0.012***		
	(0.006)		
NegPrevAdj		0.005	
		(0.009)	
PosPrevAdj			**0.011***
			(0.005)
InSession	**3.142*****	**3.203****	**2.837*****
	(0.779)	**(1.053)**	**(0.751)**
(Intercept)	**11.841+**	-5.017	**11.928+**
	(6.551)	(8.086)	**(6.814)**
Number of Observations	500	1033	620
AIC	238.99	186.67	250.97

Signif. Codes: *** p < 0.001, ** p < 0.01, * p < 0.05, + p < 0.10

Figure 13: Bill Introduction Risk Set Logistic Regressions



Green = CCSS-positive bills; Red = CCSS-negative bills; Black = All CCSS-related bills
Dots represent coefficients and lines represent 95% confidence intervals.

Analysis by Hypothesis

According to the results of this analysis, Hypothesis 1 (*H.S. Educational Attainment*) is generally supported. In each of the models focused on all CCSS-related legislation (Models 1, 4, and 7) and in each of the models focused on CCSS-positive legislation (Models 3, 6, and 9), results are negative and statistically significant. For CCSS-negative legislation, however, results are only statistically significant in Model 2, the analysis of numbers of CCSS-negative bills introduced in each state in each time

period. Although this result is statistically significant, it is in reality so close to zero that we can say educational attainment in a state has very little impact on the number of CCSS-negative bills introduced in that state's legislature.

Hypothesis 2 (*Elected Adopter*) is supported by all three of my CCSS-negative models (Model 2, 5 and 8). Results regarding this independent variable are statistically significant and negative in all three CCSS-negative models and in one of the overall CCSS-related legislation models. In the case of numbers of CCSS-negative bills introduced in a state in a given month, states with elected adopters of the Common Core State Standards will have on average 0.034 fewer CCSS-negative bills introduced in a given month than will states with unelected adopters of the Common Core.

The *PIE Network Number* variable, which is the focus of Hypothesis 3, does not directly provide support for this hypothesis but provides interesting insight about the impact of PIE Network organizations nonetheless. Results for this variable are positive and statistically significant in the models for both number of all CCSS-related bills introduced and number of CCSS-positive bills introduced in each state in each time period. This shows that although we cannot make a substantive claim about the impact of PIE Network member organizations on introductions of CCSS-negative legislation in state legislatures, it is clear that more PIE Network organizations in a state leads to more CCSS-positive legislation introductions and more CCSS-related legislation introductions overall.

Hypothesis 4 (*Republican Legislature*) is strongly supported by my analysis. The results for this variable are positive and statistically significant in all models focusing on CCSS-negative bill introductions (Models 2, 5, and 8). Additionally, in each of these

models, the coefficient for the *Republican Legislature* variable is larger than for any other variable, excluding time controls. These results show introductions of CCSS-negative legislation are greater in number and are more likely to occur in states with Republican-controlled legislatures. . In the case of numbers of CCSS-negative bills introduced in a state in a given month, states with Republican-controlled legislatures will have on average 0.064 more CCSS-negative bills introduced in a given month than will states with legislatures not controlled by a Republican majority.

Hypotheses 5 (*Republican Governor*) and 6 (*% Innovative* Neighbors) are both not supported by the results of my analysis. The variables used to study these hypotheses did not produce statistically significant results in any of the nine models. An alternative assessment of Hypothesis 6 could be performed through *RTTT Scores*, but the coefficients produced in each model for this variable are all so close to zero that it appears that Race to the Top Scores have very little impact on introductions of CCSS-related legislation.

Hypothesis 7 (*Previous Adjacent Adopters*) is generally supported by my analysis. Results for this variable are positive and statistically significant in all models except Model 8. This means that states with more neighboring states with previous introductions of CCSS-related legislation will be more likely to see introductions of CCSS-related legislation and will see higher numbers of these introductions overall. Although these results are positive and statistically significant in eight of the nine models, the values again land very close to zero, so not much of a substantive effect can be described.

Conclusion and Implications

There are many factors in state policy-making that impact the policies that are introduced and adopted. In the case of states' movement away from the Common Core State Standards, it appears that the most important factors to explain the introduction of CCSS-negative legislation are the existence of a Republican-controlled state legislature and states with elected adopters of the Common Core State Standards. State levels of educational attainment as measured by percentage of high school graduates are also significant (**Tables 8-10**).

Overall, the likelihood of a state seeing the introduction of CCSS-negative legislation has increased over time. This is shown by the overall increase in state-level legislative attention to the CCSS (**Figure 1**), the monthly hazard rate calculation (**Tables 1-3** and **Figure 5**), and the yearly hazard rate calculation (**Tables 4-6**), which shows a 54.74% increase in the observed yearly hazard rate for introductions of CCSS-negative legislation between 2012 and 2013 in **Table 5**.

When looking at first introductions of CCSS-negative legislations in each state across time, the data also point to evidence of regional effects, as shown by the calculation of average proportion of adjacent adopters (**Table 7** and **Figure 6**). This relationship is further demonstrated through the map of period of first introduction of CCSS-negative legislation in each state provided in **Figure 10**.

Several considerations must be made, however, when viewing the results of my analysis. First and foremost, the primary dependent variable analyzed in this study represents introductions of pieces of legislation and thus cannot lead to drawing any conclusions about the actual adoption of policies across states. Furthermore, the methods

used in my analysis have historically been used to examine actual adoptions of policies, making them not entirely applicable to my analysis. Future research could improve upon this by examining the adoption of CCSS-negative policies once a significant number of these policies have actually been adopted. Another area for future research would be to take this analysis a step further and study actual revocations of the CCSS across states after a few years when data for this exists. While my preliminary analysis of introduction of CCSS-negative legislation suggests some evidence of regional diffusion effects, data for actual policy adoptions may tell a different story.

Additionally, my analysis is focused movement toward the removal of an existing policy rather than the adoption of a brand new policy. In order for this analysis to fit the framework generally used in state policy diffusion literature, this movement toward removal of an existing policy would have to be viewed as the adoption of a revocation policy, which is somewhat counterintuitive.

Many opportunities exist for extension of this analysis outside of just waiting for data on policy adoptions to be available. There are many factors that exist currently that could influence a state's likelihood of having CCSS-negative legislation introduced that I did not consider, either due to availability of data or to the limited scope of my analysis. For example, I did not consider the existence of No Child Left Behind (NCLB) waivers in my analysis, and states may be motivated to either move away from or keep the CCSS depending on the content of their waivers. Another potential explanatory variable that I did not include in my analysis was the administrative capacity of each state in regards to education standards and assessments. Because the CCSS provides a pre-packaged set of standards and will soon have accompanying assessments, one could hypothesize that state

administrative capacity could influence a state's decision to either keep or revoke the CCSS because a state may or may not have the capacity to create sufficient standards and assessments on their own.

Despite the shortcomings of the data available and the relatively short time period of analysis, this study does provide sufficient evidence to say at the very least that a relationship does exist between the existence of a Republican-controlled state legislature and the introduction of CCSS-negative legislation and that a relationship does exist between introductions of CCSS-negative bills and whether or not the Common Core State Standards were adopted by an elected official. Small relationships also exist between CCSS-related bill introductions and the percent of previous adjacent adopting states and between CCSS-related bill introductions and states' Race to the Top scores. Whether this holds true in the future for adopted policies rather than just introduction of legislation remains to be seen.

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