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Understanding the relationship between subnational and national climate change politics in the United States: toward a theory of boomerang federalism

Dana R Fisher

Department of Sociology, University of Maryland, 2112 Art-Sociology, College Park, MD 20742, USA; e-mail: drfisher@umd.edu Received 5 July 2011; in revised form 13 October 2012

Abstract. In this paper, I look at how subnational policies in the United States are interacting with policy making at the federal level to address the issue of global climate change. I focus on a coordinated attempt to get the national government to fund local efforts to address climate change. Although local climate initiatives in the US were successfully translated into a national policy to support these local efforts, their implementation through hybrid arrangements that are being formed between business and local governmental actors will potentially create additional challenges to federal policy making. I introduce the notion of boomerang federalism, which builds on the extant research on federalism and vertical policy integration, to explain the process through which local efforts mobilize initiatives at the national level that, in turn, provide support for the local initiatives themselves. Reviewing the implementation process of this effort, I discuss the ways that businesses are working alongside local governments to address climate change.

Keywords: climate politics, federalism, multilevel governance

Introduction

Ever since the Kyoto Protocol was agreed upon in 1997, the United States Congress has been unsuccessful in passing a number of proposed bills that would regulate the emission of greenhouse gases.⁽¹⁾ At the same time, there has been very limited progress from the administrative branch of the US government. In the absence of political progress toward a climate change policy in the United States at the national level, significant progress has taken place at the subnational level.

During the George W Bush Administration from 2001 to 2009, for example, a number of states tried to move forward to regulate their carbon emissions. Owing to the resistance from the national government, these states took the country's Environmental Protection Agency (EPA) to court to try to force it "to reduce greenhouse gas emissions or to be allowed to do it themselves."⁽²⁾ In April 2008, citing the administration's inaction on the issue of climate change, eighteen states filed papers to sue the EPA.⁽³⁾ Action against climate change has also come from the local level in the United States, with cities, counties, and communities around

⁽¹⁾Since the Kyoto Protocol entered into legal force on 16 February 2005, a number of bills have been proposed in the US Congress that would establish a federal climate change policy. For a summary of and comparison among the bills, see http://www.eenews.net/special_reports/climate_change_domestic/ comparison_chart/

⁽²⁾For example, see http://www.washingtonpost.com/wp-dyn/content/article/2007/04/02/AR2007040200487.html; see also http://www.arb.ca.gov/cc/factsheets/ccfaq.pdf. In fact, some argue that the Obama administration efforts are the product of these judicial rulings.

⁽³⁾The states include Massachusetts, Arizona, California, Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, Minnesota, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, Washington, and the District of Columbia. For more information see http://www.usatoday.com/news/nation/2008-04-02-states-epa_N.htm

the country implementing climate change policies of their own. As of February 2012, in fact, 1055 US mayors had signed on to an agreement to implement policies similar to those included in the Kyoto Protocol in their cities.⁽⁴⁾

As the policy-making process has slowly progressed, the research on climate change politics in the United States has explored multiple aspects of the issue. Very few scholars, however, have looked at US climate change policies within the context of federalism (but see Derthick, 2010; Kraemer and Schreurs, 2007; Krane, 2007; Posner, 2010; Rabe, 2007; 2011; see also Jones, 1991). Instead, scholars have focused their attention on the different scales of policy making in America. On the one hand, there have been numerous studies that look at climate change politics at the national level, focusing on how national politics contribute to the American position in international negotiations and within the global climate change regime [see particularly, Arimura et al (2007), Fisher (2004), Harris (2000), Jacques et al (2008), Lisowski (2002), Lutzenhiser (2001), McCright and Dunlap (2000; 2003), Rabe (2004), Selin and VanDeveer (2007), and Victor (2004); see also Gelbspan (1997) and Leggett (1999) for more popular accounts]. On the other hand, research has emerged that analyzes policies coming from the local, or subnational, level. Although a small but growing literature assesses American climate change policies within the context of multilevel governance and federalism, research has yet to explore the interactions among policy making at these different scales using an in-depth empirical case study.

With this paper, accordingly, I expand the literature on US climate politics and federalism to assess the relationship between subnational and national policy making by introducing the notion of boomerang federalism to explain this case. First, I review the ways that scholars have studied climate politics in the US, paying particular attention to those who focus on the vertical intergration of climate policies. I conclude the literature review by presenting the notion of boomerang federalism. Second, I present the case of federal action that has taken place in response to local initiatives to address the issue of climate change: the Energy Efficiency and Conservation Block grants that were authorized as part of the Energy Independence and Security Act of 2007 (US House of Representatives, 2007). In this section I follow the progress of these block grants through three potential sources of funding: the congressional appropriations process for fiscal year 2009, which took place in 2008; the Climate Security Act (CSA) of 2008 (US House of Representatives, 2008); and the American Recovery and Reinvestment Act of 2009 (US House of Representatives, 2009a). Finally, I review the implementation of this grant program to assess how local governments are working through hybrid arrangements with local businesses to reduce their carbon dioxide emissions. Although local climate politics in the US have boomeranged into a meaningful national policy that supports local efforts to expand through the funding that is coming from the national program, regulation at the national level may face additional challenges.

Understanding climate change policy making in the United States

As has been previously stated, scholars have explained the lack of a national policy on climate change in the United States in many ways. In the following section, I focus particularly on those who have looked at the subnational level, in some cases, exploring the multilevel governance of the issue.

Climate change politics at the subnational level

A growing literature has emerged that looks at climate change policy making at the subnational level in the United States. This research has focused on the issue in states (eg, Burke and Ferguson, 2010; Corfee-Morlot, 2008; Farrell and Hanemann, 2009; Fisher, 2006; Gonzales, 2005; Hoffmann, 2011; Keeler, 2007; Rabe, 2007; 2009; 2010; Selin and VanDeveer, 2009),

with much of it analyzing the political progress in the US state of California, which has taken a lead in the United States in addressing this issue. Corfee-Morlot (2008), for example, finds that climate change politics in California build on the state's "past experience in leading innovative energy-environmental policy across the United States" (page 3).

There has also been a growing number of studies that look at more local levels (eg, Betsill and Bulkeley, 2006; Betsill and Rabe, 2009; Bulkeley and Betsill, 2003; DeAngelo and Harvey, 1998; Doran, 2007; Feldman and Wilt, 1993; Vasi, 2006; 2007; Wilbanks and Kates, 1999; see also CEC, 2007; Gore and Robinson, 2009). In their work on climate change politics in cities, for example, Betsill and Bulkeley (2006) look at the Cities for Climate Protection Program (see also Bulkeley and Betsill, 2003). The authors compare cities in the US, the UK, and Australia, concluding that "global environmental politics are not merely a matter of international negotiation and national policy development, but are also taking place locally" (Betsill and Bulkeley, 2006, page 154; see also Bulkeley and Betsill, 2003).

At the same time, some studies have focused on the relationship between different scales of climate change policy making, exploring what is called the 'multilevel governance' of the issue. Most of this work discusses how local policy making came about, in part, as a result of a lacking federal climate change policy. In his study comparing climate change policy development in states in the US and provinces in Canada, for example, Rabe (2007) concludes that "an unexpectedly robust body of state policy development has taken advantage of 'policy room' created by federal government disengagement from Kyoto" (page 442). Building on Rabe's work, Lutsey and Sperling (2008) focus on what they call "America's bottom-up climate change mitigation policy", finding that "the US has been more committed to climate change mitigation than is generally acknowledged" (page 673; see also Ward et al 2008). More recently, this line of inquiry has expanded further. In their chapter on "Climate change and multilevel governance", Betsill and Rabe (2009) discuss briefly how "states and local governments are beginning to interact vertically across jurisdictional boundaries" (page 203).

Federalism and climate politics in the US

The same themes run through the limited number of studies that have explicitly looked at federalism and climate change policies in the United States. Like the work on multilevel governance, these studies build on the general notion that subnational efforts have emerged to "fill a policy void left by federal inaction or refusal to act" (Krane, 2007, page 462). This perspective is echoed in Kraemer and Schreurs's (2007, page 46) study of federalism and environmentalism in the United States and Germany. Here, the authors compare the two nation-states and find that state and municipal climate change initiatives have sprung up around the US as a result of the lack of federal action (see also Jones, 1991; Rabe, 2007).

A few scholars have provided terms to describe these processes within US climate politics. In her chapter on "Compensatory federalism", for example, Derthick (2010) builds on the research on federalism and climate politics, coming to relatively pessimistic conclusions. She states: "It is not at all clear that leading states, when stepping as policymakers into the inviting breach of federal inaction, do so with any greater ability to balance ends and means" (page 69). At the same time, however, Rabe (2011) provides a more optimistic perspective in his recent work. Contending that the US has entered a stage of what he calls "contested federalism", the author describes this stage as one in which there is "continued high involvement by states but also increasingly high involvement by the federal government" (page 505) in American climate policy.

Even though these studies present different ways of thinking about the relationship between the federal government and subnational climate politics in the United States, most of the focus has been on specific policies rather than on more general policy mechanisms. The one exception is presented in a recent chapter by Posner (2010), who looks at how state policies can diffuse vertically to the federal level. In this chapter, the author outlines four different federal policy tools that can balance federal and state initiatives: categorical grants, federal mandates, devolution, and preemption (pages 83–84). Although this research takes important first steps in understanding the vertical integration of climate change policy making in the US, it has yet to focus extensively on one particular policy mechanism to outline the explicit ways that federal policy making *interacts* with what is happening at the local level of governance. Specifically, scholars have yet to analyze directly how national policy making responds to, and potentially encourages, local policy making.

Thus, this paper builds directly on Posner's work to show how vertical policy integration works in one detailed case study. Moreover, I discuss how this integration trickles back down to the subnational level. I introduce the notion of boomerang federalism to explain this process, which shows how climate policy diffusion is taking place in the United States. The notion builds off of the few studies of vertical policy diffusion from the bottom up (Shipan and Volden, 2006; see also Daley and Garand, 2005; Mintrom, 1997). This paper explores the case of a policy intervention that was driven by subnational actors' working through a policy entrepreneur that served as a conduit "for innovation diffusion" between the local and the federal level (Mintrom 1997, page 45; see also Balla, 2001; Mintrom and Vergari, 1996). As I will explain in detail in the pages that follow, boomerang federalism explains how, in the face of a policy void, local actions can scale up to *national* policies and federal efforts then contribute to local initiatives already underway.

Data and methods

In contrast to the research that has analyzed large quantitative datasets to understand the vertical policy diffusion of antismoking policies (Shipan and Volden, 2006), state school choice policies (Mintrom, 1997), and hazardous-waste programs (Daley and Garand, 2005), this study uses a mixed-method approach to present an in-depth case study of one particular policy intervention: the Energy Efficiency and Conservation Block grants (EECBGs) that were enacted through the Energy Independence and Security Act of 2007. These grants were briefly discussed as an example of potential vertical integration of climate policies in Betsill and Rabe's (2009) work on multilevel governance before they were enacted. As will be discussed in detail in the pages that follow, these grants provide an example of what Posner (2010) calls "categorical grants" wherein the federal government supports programs by "requiring states to use the funds to support strong complementary programs" (page 84).

This study incorporates two very different types of data: quantitative data from secondary sources and data that were collected through qualitative interviews with people involved in climate change policy making in the United States. The quantitative data for this paper were collected from multiple sources as cited within the text. The qualitative data for this paper were collected during multiple research trips to Washington, DC in the second half of 2008, the first half of 2009, and the first half of 2011.⁽⁵⁾ Interviews took place during the end of the 110th Session of the US Congress and the last year of the Bush Administration, during the beginning of the 111th Session of the US Congress and the beginning of the 112th Session of the US Congress, both of which were during the Obama administration's first term. In addition, data were collected in Boston, Massachusetts and New York City. In total, data were collected from twenty-five individuals who are actively engaged in the issue of climate change in the United States at the local and national levels. Interviewees represent a

snowball sample of those who contributed to political decisions regarding the passage and funding of the EECBGs and local leaders on the issue of climate change.

Formal interviews were conducted with fifteen of these people who were key players involved in determining the policy decisions regarding climate change and the EECBGs. Building off of the work of Lofland and Lofland (1995), the interviews were open-ended and semistructured.⁽⁶⁾ Interviews ranged in length from thirty minutes to two hours. In all cases, they were conducted using 'active' interview techniques (Holstein and Gubrium, 1995), which are more conversational than structured. Respondents were asked early in the interview to provide their personal background with regard to the issue of climate change and to summarize their current work on the issue. Respondents were then asked to provide their interpretations of the status of the EECBG program, as well as that of climate politics in the United States.

The interviews were tape-recorded and transcribed, and extensive notes and memos from all of the interviews were kept as the bulk of the qualitative dataset. A qualitative data analysis computer program (NVivo quantative data analysis software, QSR International Pty Ltd., version 9, 2011)) was used to store, sort, and code transcribed data. Analysis relied on open coding, which allowed for emergent and unexpected themes. In a number of cases, subjects were interviewed multiple times to follow up on the status of the grants. When I refer to interviews with people who agreed to speak on the record, I reference the name of the person and his or her affiliation. For those people who spoke with me with the understanding that they would not be directly attributed, I reference those conversations by citing only the person's general affiliation.⁽⁷⁾

Findings

As has been previously noted, this research provides in-depth analysis of the ways that vertical policy integration has worked in the United States. Thus, in the pages that follow I present the findings of research conducted on an attempt by the federal government to support local action on climate change. In particular, this paper follows the EECBG program from its authorization as part of the Energy Independence and Security Act of 2007 through three specific attempts to fund it: the appropriations process for the 2009 federal budget, the CSA of 2008, and as a component of the American Recovery and Reinvestment Act of 2009.

The Energy Efficiency and Conservation Block Grants

In response to the implementation of the Kyoto Protocol, which entered into legal force in February 2005, the Mayor of Seattle began an initiative to get cities around the United States to commit to "strive to meet or beat the Kyoto Protocol targets in their own communities, through actions ranging from anti-sprawl land-use policies to urban forest restoration projects to public information campaigns."⁽⁸⁾ Signatories to this initiative also agreed to encourage their states and the federal government to meet the commitments of the Kyoto Protocol, as well as to urge the US Congress to pass national legislation that would reduce greenhouse gas emissions. As the initiative was adopted by more cities, its coordination was transferred to the United States Conference of Mayors (USCM). The USCM describes itself as "the official nonpartisan organization of cities with populations of 30,000 or more."⁽⁹⁾

⁽⁸⁾http://www.ci.seattle.wa.us/mayor/climate/

⁽⁹⁾http://www.usmayors.org/about/overview.asp

⁽⁶⁾Data collection for this project was conducted in accordance with Columbia University policies on the research on human subjects (IRB Protocol # IRB-AAAD2840).

⁽⁷⁾In all cases, quotations included in this paper have been edited to remove repetitive phrases and words such as "y'know", 'like', and "um", which have no bearing upon the content of the statements. In cases where these words provide additional meaning to the quotes, they were not deleted.

The USCM identifies two of its primary roles as to "strengthen federal-city relationships" and to "ensure that federal policy meets urban needs."⁽¹⁰⁾ By February 2012, the initiative, which came to be known as the "US Mayors' Climate Protection Agreement", was endorsed by 1055 cities, which represent about 92% of the cities that are members of the USCM.⁽¹¹⁾ These cities range from the largest in the US, like New York City, to smaller American cities with fewer than 100 000 inhabitants, such as Kenosha, Winsconsin. The mayors who have signed on to the agreement come from all fifty States and represent a total population of over 88 million American citizens.

One of the challenges facing mayors who sign on to the agreement is the limited funds available to implement climate change mitigation strategies in cities across America. The EECBGs were created explicitly to provide federal funds to cities to address this issue. In a webcast on 1 April 2009 the CEO and Executive Director of the USCM, Tom Cochran, provides a history of the program: "the Energy Efficiency and Conservation Block Grant Program was conceived here at the Conference of Mayors two or three years ago, in 2007."⁽¹²⁾ During an interview in 2008, Kevin McCarty, the Managing Director of the Mayor's Climate Protection Center, which is part of the USCM, further explains: "[The Conference of Mayors] started this [program] as a way to address climate protection by keeping momentum going in the climate movement by infusing resources from the national government" (interview, 8 May 2008). In other words, the USCM designed the EECBG program to support the work of localities as they respond to climate and energy concerns.

Included as part of the Energy Independence and Security Act of 2007, the law authorizes US \$2 billion a year to provide block grant assistance to localities (ie, cities, counties, and states) around the United States from 2008 to 2012. In the words of a report by the USCM (2008), the program

"strengthens and further empowers the efforts of mayors and other local elected officials as they take local actions to reduce the nation's energy dependency, promote increased energy efficiency, develop greener energy supplies and further climate protection goals" (page 1).

These block grants are a clear example of what Posner (2010) calls "categorical grants" (page 84), as they were designed to provide federal support to expand the local actions already taking place in cities throughout the United States.

Although the initial text of the block grants framed the issue with regard to climate change, the term was removed from the bill and it was refocused on energy efficiency. Kevin McCarty discusses the choice to change the text:

"Energy use is about climate, and it is not a perfect surrogate but ... it is as close as we could get in the [legislative] process, because the original legislation had climate at least a couple dozen times in it, those all had to be deleted" (interview, 8 May 2008).

A number of people involved in the politics around the Energy Bill as it progressed through the Congress explain that the term was removed to ensure that the block grants would have an easier time being approved as part of the bill. The legislative assistant in charge of the issue for Congressman Wynn, who proposed the bill in the House of Representatives, for example, states:

"Climate change is such a thorny and difficult problem for people on both sides of the aisle. If climate change were introduced into that bill it would have caused problems and probably delayed passage. The emphasis was on 'let's get something that we can pass.'

⁽¹⁰⁾ http://www.usmayors.org/about/overview.asp

⁽¹¹⁾This statistic is calculated based on membership numbers provided by the USCM.

⁽¹²⁾ http://www.usmayors.org/live/

Because the Speaker [of the House] wanted legislation that we could pass, there was an emphasis on getting something out" (interview with Ridg Mills, 29 May 2008).

Similarly, John Jimison, the Counsel for the Committee on Energy and Commerce in the House of Representatives, recalls the challenges in his committee:

"In our committee, we could not include both greenhouse gas control and energy efficiency as the purpose of the Block Grant Program without making the issue of climate change germane to the entire bill and opening it to other amendments related to climate change. This [change] would have broadened the bill unacceptably and made it much harder to get it enacted. Since energy efficiency of almost any sort helps mitigate greenhouse gas production, we did not feel we were unduly constraining the optional activities for grant recipient states and cities" (personal correspondence, 13 August 2008).

In general, people in the House of Representatives interpreted the term 'climate change' as potentially problematic for the approval of the block grants.

Although people in the Senate did not see the inclusion of the term 'climate change' as equally troublesome, they did recognize that passage of the bill would be easier with it focused specifically on energy efficiency. In the words of Doug Clapp, the clerk for the Subcommittee on Energy and Water Development in the Appropriations Committee of the Senate, "You can get agreement between ... the Chair and ranking [Republican] member of the Subcommittee on a lot of energy issues and a lot of energy efficiency issues. But you won't necessarily get agreement on climate change" (interview, 6 June 2008). With this general consensus that the block grants should be focused on energy efficiency instead of climate change, the term was removed from the text of the bill and introduced as an amendment to the Energy Independence and Security Act of 2007.

After removing the term 'climate change' from the text, there were no challenges to the inclusion of the block grants in the Energy Bill. Ridg Mills recalls that the EECBGs did not stir up resistance. In his own words, "it wasn't the thing that they were fighting over" (interview, 29 May 2008). This impression was echoed by people involved in the passage of the Energy Bill in the Senate, who recalled that the block grants were "popular" (interview with staff member in the Appropriations Committee, 11 June 2008). Although Deborah Estes, the Counsel for the Senate Energy and Natural Resources Committee, remembers there being a difference of opinions about how the grants would be distributed among cities, she adds that "there was really no objection" to their passage (interview, 29 May 2008). In general, the block grants were seen as what some people involved in the policy-making process call 'green pork', or funding for environmental projects that flow from the national government back to the congressional districts and states of the elected officials who support them.

Although the EECBGs were relatively easily approved as part of the Energy Bill, some people in Congress expected that there would be resistance during the appropriations process. Estes explains: "When a program is authorized, everybody knows it still needs to get funding If you are going to oppose something, you oppose a mandate or a regulation that actually has an impact as soon as the law is passed, rather than spending time opposing authorizations." In other words, since the authorization of a new program does not actually implement it, resistance to the program does not emerge until the next stage, when the program is allocated funding. It is very likely that the block grants were easily passed as part of the Energy Independence and Security Act of 2007 because they could not be enacted without getting funding through the appropriations process.

People involved in the issue in the House of Representatives did not question the structure and content of the block grants. In the Senate, however, concerns were raised about the distribution of the money, the program's oversight, and its placement at the Department of Energy (DOE). Beyond these issues in the Senate, a number of people involved in

the appropriations process noted that they were facing additional challenges because the President's budget cut other preexisting programs that focused on energy efficiency. In particular, President Bush's proposed budget for 2009 had completely cut the funding for the DOE's Weatherization Assistance Program, which supports energy efficiency projects for low-income households in the United States.⁽¹³⁾ Across both houses of Congress there was a general level of consensus that Congress would have to find the funding to restore this program. Estes explains: "[The committee is] not going to take a program that they've been funding for 10 years and dump it."

In summer 2008 there were also other more general challenges to getting new program funding in the political environment in the United States. In particular, President Bush made it patently clear to Congress that he would veto any budget that included new programs in the 2009 budget. As a result, many in Congress predicted that there would be no finalized and approved budget for 2009 until the year had begun and a new President had entered office. Regardless of the topic of the program, because President Bush opposed funding new programs, approval of the majority of the appropriations bills for the 2009 budget had been put, in the words of Mills, "on hold".⁽¹⁴⁾ Not only were the EECBGs a new program, which the President clearly stated he would not support in the 2009 budget, but the budget was particularly constrained with the deficit and the expense of the war in Iraq. As Clapp notes, "We essentially have a billion dollar hole" (interview, 6 June 2008).

Prior to the appropriations committees in both houses of Congress finalizing their budget proposals—or what is called the 'markup' of the spending bills—the sponsors of the EECBG proposals in the House of Representatives and the Senate sent letters to the appropriations committees recommending that the grants be funded. In the House of Representatives the letter was signed by ninety-one members of Congress. The Senate letter was signed by thirty-one Senators. In addition, a number of organizations that represent local communities—such as the National League of Cities, the USCM, and the federal legislation-focused group 'Climate Communities'—sent letters to the leaders in the appropriations committees in both houses of Congress that were signed by mayors and heads of localities around the United States. In the end of June 2008 the House Appropriations Committee included US \$295 million dollars for the program in their markup of the budget for fiscal year 2009.⁽¹⁵⁾ The Senate Committee, however, did not appropriate any money for the program.⁽¹⁶⁾ As will be explained in more detail later in this paper, the appropriations process for the energy budget was not resolved until after President Obama came into office and his Recovery Act was passed.

The Lieberman–Warner Climate Security Act of 2008

While the Energy budget was slowly working its way through Congress, the CSA of 2008 provided another potential source of funding for cities to implement their climate policies. Even though the term 'climate change' was removed from the text of the Energy Independence and Security Act, the block grants became entangled with discussions about national climate change policy making during consideration of this national climate change bill in the Senate. In May 2008 Senator Boxer, the Chairman of the Environment and Public Works Committee of the Senate, introduced a substitute amendment to the Lieberman–Warner CSA (US House of Representatives, 2008). If implemented, the act would regulate the emissions of carbon

⁽¹³⁾For more information see http://www.eere.energy.gov/weatherization/

⁽¹⁴⁾The energy budget was one of twelve of the appropriations bills considered in Congress.

⁽¹⁵⁾http://appropriations.house.gov/pdf/EWFY09FCSummary06-08.pdf

⁽¹⁶⁾It is worth noting that the Chairman's Mark of the Senate Appropriations Committee's Second Stimulus Supplemental Appropriations Bill included a competitive version of the block grant program [for more information see Byrd (2008)].

dioxide by establishing a market-based cap-and-trade program for greenhouse gas emissions in the United States. One of Senator Boxer's additions to the bill was to provide funding for the EECBGs through 2050. Funding would be made possible by the revenue from the capand-trade system and would eliminate the need for the block grants to be funded through the appropriations process each year.

The CSA was debated on the floor of the Senate the week of 2 June 2008. As expected, Republican members of the Senate filibustered, delaying discussion of the actual bill by insisting that all 492 pages of it be read aloud on the floor. To end the filibuster against the bill, the Senate Majority Leader Harry Reid called for a cloture vote. On 6 June 2008, forty-eight senators voted to end the debate, failing to earn the sixty votes needed to invoke cloture and move forward on consideration of the bill.⁽¹⁷⁾ Although the CSA never came up for an actual vote, a number of people involved in the legislative process around the issue of climate change interpret the cloture vote to be representative of how the bill would have fared. In the words of a senior staff member in the Senate who has been involved in policy making on climate change since the 1990s, the cloture vote was "basically a vote on the bill" (phone interview, 11 June 2008).

With the defeat of yet another bill that would create a national climate change policy in the United States, it is worth exploring how we can understand the outcome of the vote. Findings from an analysis of the cloture vote by senators are consistent with earlier studies of legislative votes on climate bills (Fisher, 2006). In particular, the voting behavior of senators on national climate change legislation can be explained to a large degree by the natural resource endowment of the states that the senators represent: states with high levels of coal extraction tend to oppose climate change legislation that would likely reduce the state's capacity to profit through the extraction of their coal deposits.

To analyze the role that coal dependence and the party affiliation of the senators played in terms of votes against cloture on the CSA, data on coal extraction in the United States were analyzed against senators' votes against cloture (EIA, 2006). Table 1 presents the results of two logistic regressions of individual senators' votes against the CSA. Model 1 shows that coal extraction significantly affects the voting behavior of senators. In model 2, which includes coal extraction as well as party affiliation, both of the variables are very significant predictors of the outcome of the vote.

Independent variable	Model 1	Model 2	
Coal extraction	0.760 **	1.005 *	
	(0.276)	(0.449)	
Republicans in the Senate		4.062 **	
		(0.680)	
Constant	-1.010 **	-3.273 **	
	(0.320)	(0.777)	
-2 log-likelihood	113.070	57.992	
* Significant at the 0.05 level	; ** significant a	t the 0.01 level.	

Table 1. Logistic regression coefficients predicting votes against the climate security act of 2008, coefficient (SE), N = 100.

⁽¹⁷⁾It is worth noting that six senators who were absent during the vote—Hillary Clinton (Democrat NY), Barack Obama (Democrat, IL), John McCain (Republican AZ), Norm Coleman (Republican MN), Joe Biden (Democrat DW), and Ted Kennedy (Democrat, MA)—all of whom stated that they would have voted for cloture had they been present.

In other words, controlling for party affiliation does not eliminate the relationship between coal extraction and the vote on the Lieberman–Warner Security Act of 2008. This finding supports the notion that coal extraction continues to play a significant role in the voting behavior of senators in the US Congress.⁽¹⁸⁾ It suggests that, as long as coal extraction contributes significantly to so many state economies in the US, national climate change legislation will be very difficult to pass. The failure of the bill means that the climate change "policy void" that Krane notes in his 2007 article, and that many scholars discuss as providing space for subnational efforts on the issue (eg, Kramer and Schreurs, 2007; Lutsey and Sperling, 2008; Rabe, 2007), continued at the federal level throughout 2008 and that no funding was made available through this bill to support local climate change initiatives.

The American Recovery and Reinvestment Act

Although the CSA did not open up a new source of revenue to support local climate change efforts, yet another source of revenue for the EECBGs emerged in the form of the Economic Recovery Plan put forth by the Obama administration. Early in the presidential campaign Senator Obama wrote a letter to the President of the USCM stating his support for the block grants. In his letter he stated that "These initiatives will be central to America's efforts to confront the critical issue of climate protection."⁽¹⁹⁾ After being elected, Obama made numerous statements about his intention to regulate greenhouse gases. Then, in order to address the economic crisis facing America, the new President proposed a stimulus package that would fund localities to support energy efficiency and green infrastructure projects. In the words of a radio address on 6 December 2009, the President-elect broadly outlined his "economic recovery plan for both Wall Street and Main Street that will help save or create at least two and a half million jobs, while rebuilding our infrastructure, improving our schools, reducing our dependence on oil, and saving billions of dollars."⁽²⁰⁾ Included in this plan was funding for the EECBGs. As the plan worked its way through the US Congress, mayors and heads of localities were brought in to speak with members of the administration and congressional leaders about the Block Grant Program, highlighting all of the programs that were 'shovel-ready'. Numerous groups representing the interests of local governmentsincluding the USCM-brought mayors and local leaders to Washington, DC to meet with members of Congress and showcase the projects that were ready to be implemented around the country if the Block Grant Program was funded through the Recovery Act.

On 17 February 2009 President Obama signed the American Recovery and Reinvestment Act of 2009 into law. Included in the act is US \$3.2 billion to fund the EECBG program for two years. Per the guidelines provided by the Energy Independence and Security Act of 2007, the grants are being administered through the US DOE's Office of Energy Efficiency and Renewable Energy. After the EECBG program was funded, an official website was launched to outline the purpose of the grants and provide guidance to applicants. It states: [the program] "provides funds to units of local and state government, Indian tribes, and territories to develop and implement projects to improve energy efficiency and reduce energy use and fossil fuel emissions in their communities."⁽²¹⁾ Even though there was initially resistance to linking the Block Grant Program to the issue of climate change, once they were funded in 2009, the DOE explicitly named the reduction of fossil fuel emissions as one of the main aims of the EECBG program. The program website, which is housed on the DOE site, explicitly

⁽²⁰⁾ http://change.gov/newsroom/entry/the_key_parts_of_the_jobs_plan

⁽¹⁸⁾It is worth noting that in an analysis of the cloture vote that includes those who stated that they would have voted for cloture (but did not vote), the results are even more significant.

⁽¹⁹⁾Letter of 10 December 2007 to USCM President, Douglas Palmer, from Senator Obama.

⁽²¹⁾ http://www.eecbg.energy.gov/; see also http://www.epa.gov/cleanenergy/documents/local_guide_to_arra.pdf

states the "Program empowers local communities to make strategic investments to meet the nation's long-term goals for energy independence and leadership on climate change."⁽²²⁾

Once the program was funded, those administering the grants were acutely aware that their purpose was to support the progress that had already been made on the issue of climate change at the local level. In the words of Mark Bailey, a state and local team leader in the DOE Office of Energy Efficiency and Renewable Energy, "Not everybody's looking to the federal government for the solutions, we know that ... we get that" (interview, 16 March 2009). Speaking about the relationship between the federal government and localities in the context of the EECBGs, Bailey talks about how the national government can support what is *already* taking place at the local level. He continues: "The challenge is how do we [the DOE] connect to people ... who have been doing this for quite a while, frankly. This is where the innovation is ... innovation has happened locally for 10–20 years." Here, the head of the program that is distributing the block grants clearly recognizes that they will be providing federal support for local ongoing efforts.

Although additional funding for the block grants was not granted through the Omnibus Appropriations bill for 2009 (US House of Representatives, 2009b), the program to support local efforts was funded at almost the full amount proposed in the Energy Independence and Security Act of 2008 for its first two years through the American Recovery and Reinvestment Act. During interviews with a number of people involved with the EECBGs, they noted that the success of the program in its first two years would determine if additional money is made available by the federal government to support local efforts in the future.

Throughout 2008 it was unclear if any federal funding would actually become available for cities. As a result, people working at the local level were not banking on the EECBG program. In New York City, for example, the Senior Policy Advisor on Sustainability, Jonathan Dickinson, explains that the city drafted its climate change plan assuming no support from the federal government. In his own words:

"We did not include anything in our plan that we were going to rely on the federal government to either legislate or fund directly for our plan to proceed We really wanted to make sure that everything in the plan we could do ourselves" (interview, 4 June 2008).

These opinions were echoed by representatives of other cities who did not expect any money to trickle down from the federal government. Once the EECBG program was funded through the Recovery Act, however, cities around the United States scrambled to put together proposals that were eligible to receive funding through the program. In New York City, for example, officials worked to identify which projects were eligible, noting that they had many more projects than the Block Grant Program would cover. In addition, they pointed out that money from this Block Grant Program will enable them to implement their climate change plan faster than they had initially scheduled (interview with official, 9 March 2009).

Implementation of the Energy Efficiency Conservation Block Grants

Once the program was funded, the DOE began to implement the program and distribute the money. In contrast to the concerns raised by Betsill and Rabe (2009) before the grants were enacted that the EECBG allocation process would create "competition between cities and states" (page 218), the structure of the program requires that most of the US \$3.2 billion (almost 85%) should be distributed through formula grants to cities, counties, states, and Indian tribes.⁽²³⁾ Only a small proportion (14%) was to be spent through a competitive grant process.⁽²⁴⁾ This competitive component of the program has been named the "Better Buildings Program Grants" of the EECBGs.⁽²⁵⁾ In the remainder of this paper I discuss the

⁽²²⁾ http://www1.eere.energy.gov/wip/eecbg.html

⁽²³⁾ For details of the formula allocations, see http://www1.eere.energy.gov/wip/eecbg_state_allocations.html
⁽²⁴⁾ For details about how the remaining 1% is distributed see http://www1.eere.energy.gov/wip/eecbg.html
⁽²⁵⁾ For more information see http://www1.eere.energy.gov/buildings/betterbuildings/about.html

way these specific grants have been implemented. By focusing on those efforts that were awarded through the competitive grant process, we can learn more about the best practices of subnational efforts to implement climate policies as well as about what types of programs were supported by the federal government.

Overall, competitive grants were awarded to thirty-three cities, counties, and states across the United States.⁽²⁶⁾ Comparing the states in which these competitive grants were awarded with their natural resource endowments, some interesting patterns emerge. In particular, two thirds of those states that did *not* receive any money from the competitive component of the EECBGs program are coal-producing states. This finding is consistent with those of Fisher (2006): even at the subnational level, an area's natural resource endowment plays a role in the actions of its policy makers.

Beyond the enduring role that natural resource endowments are playing in the support of (and resistance to) climate policies at all levels of governance, this competitive grant program shows how government actors are working with other social actors to implement "innovative ways to engage, inform, and motivate Americans to increase energy efficiency" through this program.⁽²⁷⁾ In particular, local governments are working with civic groups and businesses in a manner consistent with the work on hybrid arrangements, which argues the need to "rethink the role of the state, market, and civil society actors in global governance" (Spaargaren et al, 2006, page 15).

For the EECBGs, businesses are the most common nonstate partner. In fact, twentythree out of the thirty-three funded competitive grants (70%) had a role for business in their implementation.⁽²⁸⁾ Local energy companies were the most prevalent actor in these hybrid arrangements, playing a role in coordinating with energy consumers and households and providing financing. In Philadelphia, Pennsylvania, for example, Philadelphia Gas Works partnered with the city government to assist homeowners in increasing their energy efficiency by providing certified building analysts and contractors to conduct home energy efficiency upgrades. Part of the program involves offering fixed-rate loans to homeowners to do the work.⁽²⁹⁾ Similarly, a US \$20 million grant from this competitive program was awarded to Seattle, WA to implement a "neighborhood-based building upgrade program that will achieve deep energy savings and create green jobs."⁽³⁰⁾ To that end, the city partnered with Puget Sound Energy to provide discounted home energy assessments. In order to implement the changes identified in the assessments, the city offered rebates, incentives, and affordable loans that could be repaid through the local energy company, Seattle City Light. In other words, implementation of these competitive grants involved hybrid arrangements between the local governments and businesses including many local energy companies.

Discussion and conclusion

Overall, the findings from this study of the EECBG program support the notion of what I call boomerang federalism. In the face of a policy void at the national level, local efforts emerged to respond to the issue of global climate change. With the help of the USCM, which acted as a policy entrepreneur serving as a conduit "for innovation diffusion" between the local and the federal level (Mintrom, 1997, page 45), local actions scaled up to the national level

⁽²⁹⁾ For more information see http://ecasavesenergy.org/services/energy-works

⁽³⁰⁾ http://www.communitypowerworks.org/about-community-power-works/

⁽²⁶⁾One grant was awarded to a regional effort to partner cities in eight southeastern states. For more information see http://www.seealliance.org/programs/cities.php

⁽²⁷⁾ http://www1.eere.energy.gov/buildings/betterbuildings/grant_recipients.html

 $^{^{(28)}}$ It is worth noting that nineteen of the thirty-three grants (58%) also partnered with civil society actors in some way or another.

and federal funding to support these local efforts was approved by the national government. As a result of boomerang federalism, cities around the US are currently receiving federal money to implement their climate change policies.

Moreover, the findings of this study support the notion that these federally supported local programs are being implemented through hybrid arrangements between businesses and local governments. These arrangements involve multiple stakeholders, including energy companies and homeowners, to increase energy efficiency while reducing carbon dioxide emissions. I find that there is a great deal of climate policy innovation taking place in the US at the subnational level. As 92% of all cities around the United States take steps to address the issue of climate change with the help of federal funding from the EECBG program, local climate politics are expanding with support from funds that are the product of boomerang federalism.

If and when a federal climate change policy is passed, however, there are likely to be significant challenges. During interviews for this study, a number of policy actors involved in the implementation of the EECBG Program noted that federal support for local efforts may lead to difficulties with the implementation of a national law. Particularly if Congress passes legislation that involves some sort of an economy-wide change, such as a cap-and-trade system, local governments that have taken a diversity of measures to address local problems may face some significant challenges, as Derthick (2010) has noted in her work. These findings are also consistent with the work of Keeler (2007), who states that subnational policies may make a "strong and coherent national policy more difficult" (page 353; see also Kraemer and Schreurs, 2007, page 39).

Recognizing the value of local innovation, Andrea Denny, the Municipal Clean Energy Program Manager of the State and Local Branch of the US EPA, recognizes the ways local efforts can add value. In her own words:

"with an economy-wide system [in a federal climate change policy], there are a lot of things local governments can do to make federal policy more cost-effective and achieve greater reductions in greenhouse gas emissions" (interview, 6 April 2009).⁽³¹⁾

Nonetheless, not one of my interviewees was able to provide an explanation of how the federal government would reconcile the policy differences that are naturally emerging across localities while there is no federal policy in place.

The findings from this extensive study of the EECBGs points to a number of future research opportunities. First, future research must continue to track the implementation of the EECBG program, looking more in depth at how cities use the federal money, the hybrid arrangements that they form, and the environmental effects of these local efforts in terms of emissions reductions. Second, research should also explore how these diverse initiatives are harmonized when and if there is a federal climate change policy in the United States. Third and finally, future research must continue to develop the notion of boomerang federalism and assess the degree to which it applies to other policy contexts in which there is a federal policy void and there is a policy entrepreneur that is working to bring about policy innovation. Through such research, we will learn much more about the mechanisms that bring about policy change from the bottom up and how successful such policies are at regulation.

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⁽³¹⁾The opinions stated are the interviewee's and not official EPA policy.

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