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Unlikely pioneers: creative climate policymaking in smaller U.S. cities

Abstract

With the U.S. federal government stepping away from climate change, a number of cities have indicated that they will continue efforts to reduce greenhouse gas emissions. Broad statistical analysis and case studies of larger and often progressive cities have provided some insight into what drives local governments to act on climate change mitigation. However, the vast majority of U.S. municipalities, most of them small, do nothing. Understanding what might drive smaller, poorer, and less progressive places is important if local governments are expected to take the lead on this global commons issue. In this exploratory study, I examine a group of “unlikely pioneers” – communities that statistical modeling indicates are least likely to undertake climate change action, but then do act. Using interviews and document reviews in twelve of these communities, I seek to answer the question: what drives these unlikely pioneers to act? I find that local leaders reframe climate action as a way to save money and attract economic development. Personal environmental ethics drive small town leaders to act on climate change. Citizen committees can provide technical resources and political support. Otherwise, and more subtly, citizens can create a political environment that reduces resistance to climate change policymaking. Despite research that indicates fiscal health is correlated to increased sustainability, no communities in this study initiated climate mitigation from general revenues. All required grants or other revenue to act. In four of the communities, the income from municipally-owned utilities provided the fiscal resources for climate change programs.

Keywords: climate change, local government, leadership, capacity, citizen participation

Introduction

The election of U.S. President Donald Trump has resulted in a reconsideration of the federal role in climate change mitigation efforts. The Trump Administration has begun dismantling the previous president's Clean Power Plan, announced the U.S. withdrawal from the Paris Climate Change Accords, and started unraveling other initiatives (Davenport and Rubin 2017). Faced with reduced national leadership, a number of leaders in places such as New York City, Los Angeles, Atlanta, and Salt Lake City pledged they would continue policies to reduce greenhouse gas emissions on their own (Tabuchi and Fountain 2017).

Climate change mitigation represents the biggest commons issue (Stavins 2010). Local governments seeking to act on their own must tackle free rider and negative spillover challenges. Within the local climate mitigation context, free riding occurs when some municipalities do not act and let other jurisdictions incur the costs of policies needed to meet regional or national greenhouse gas reduction goals. Spillovers occur when some communities enact policies to reduce emissions that result in the flight of companies or other sources of pollution to neighboring municipalities.

Despite these challenges, some municipalities still try to reduce greenhouse gas emissions on their own. For example, a 2010 survey found that 12 percent of local governments have inventoried greenhouse gas emissions or set reduction targets (Svara 2011). Numerous statistical studies have found important correlations that indicate that state and regional frameworks, local political culture, presence of environmental priorities, professional staff, citizen participation, and local capacity are among the factors driving climate change action by local government (Krause 2011; Hawkins et al. 2016). Some of these factors vary by the size of a community (Tang et al. 2010; Homsy and Warner 2015). Still, while several hundred municipalities have

created and adopted climate change action plans (Boswell et al. 2011), the vast majority do nothing (Svara 2011).

Given the challenges of independent local action, the federal government in the United States has traditionally driven environmental protection efforts with the passage of more than a dozen statutes in the 1970s (Andrews 2006). The top-down, command and control regulatory scheme resulted in dramatically cleaner air and waterways, but falls short of dealing with more complex issues, such as climate change, that require localized solutions (Fiorino 2006). A short-lived project to support local efforts, the Partnership for Sustainable Communities, started in 2009 as a collaboration between the federal Environmental Protection Agency, Department of Transportation, and Department of Housing and Urban Development, but soon lost funding (Birch and Lynch 2012). In other areas, such as watershed protection, the federal government has started to coordinate the local efforts of municipalities (Margerum and Robinson 2015).

Local governments are appropriate places for climate change action because they emit a significant portion of greenhouse gases (Bulkeley 2010). Cities can green their own operations by, for example, making municipal buildings more energy efficient or by buying electric vehicles for municipal fleets. Also, municipalities have the power through zoning, building code enforcement, and other policies and regulations to shape private development and activities within their jurisdiction, for example, to reduce vehicle miles traveled or to cut building energy consumption. Finally, municipalities are first to respond and must deal with consequences long after local climate-related disasters.

Understanding why some communities act on climate change and others do not is important to practitioners engaged in policymaking as well as scholars seeking to understand local government decision making. Statistical analyses take our understanding only so far and

scholars have called for a more in-depth and nuanced accounting of why local governments act (Hughes 2017). The current study starts to fill this gap in the literature by qualitatively investigating the research question: What are the drivers of climate change action by a particular subset of local governments, termed “unlikely pioneers?” These communities received this label because a statistical model predicted they would be highly unlikely to act on climate change mitigation, but then each place did enact energy conservation and greenhouse gas emission policies. This focus on unlikely pioneers means I explore small city, suburban, and rural actors, which are not well investigated in terms of their climate change mitigation policymaking.

In the next section, I describe the state of our understanding of climate change action by local governments, which is principally derived from statistical models or case studies in large cities. I then describe the methodology I use to select communities deemed to be “unlikely pioneers” and the strategy for exploring their decision making through interviews with local leaders and a review of documents. Then I discuss my findings that illuminate the mechanism around leadership, capacity, and citizen participation. In the conclusion, I note the study’s limitations and offer some next steps in a research agenda.

Framing local government action on climate change

An extensive body of literature on local government action on climate change has developed over the past few years. Most of it is derived from statistical models, which have converged on the importance of some factors, but fail to reveal the details about the ways that these factors work. (See, for example, Zahran et al. 2008; Krause 2011.) Some of these specifics have been described in a few case studies, but these are usually undertaken in larger urban areas or overseas. (See, for example, Young 2010; Ramaswami et al. 2012; Campbell 2015.) While

important, the generalizability of these case studies remains a question because the vast majority of municipalities in the United States are small. Just over half of Americans live in communities of fewer than 25,000 people and less than one-third reside in the 313 American cities with more than 100,000 residents. If policymakers expect local governments to lead, scholars need to provide a more comprehensive understanding of what drives a diversity of places to act. In this section, I focus on three important frameworks through which climate action, in particular, and sustainability, more generally, has been analyzed: leadership, capacity, and citizen activism.

Leadership

Policy entrepreneurs are local officials who recognize and seize the opportunity for change within a community. These often hierarchical leaders can establish environments which encourage creative problem solving and empower change (Uhl-Bien et al. 2007). Such entrepreneurs increase climate change mitigation action in a city (Krause 2012) often by reframing this global issue as a local one (Bulkeley 2010). In statistical models, leadership is often a simple variable indicating whether or not the community has a council-manager or mayor-led form of government. Council-manager forms of government, which are traditionally considered more professional and innovative operations (Nelson and Svara 2012), are positively correlated with general sustainability action (Opp et al. 2014) though the impact may not be significant with regards to climate change (Homsy 2018). A survey of local leaders across the Great Plains of the U.S. found that while government officials are important initiators of environmental action, their attention has not been on climate change (Romsdahl et al. 2013). Planners in the western US similarly report a lack of political will by their municipal leaders to act on the issue (Carter and Culp 2010).

Leaders can also emerge from the community and these people play important roles in seeking financial resources, building technical capacity around needed skill sets, and engaging across various stakeholders (Martiskainen 2017). Engagement with such activists allows government officials to internalize sustainability goals and increases accountability (Portney and Berry 2016). This engagement is needed to incorporate the local knowledge necessary to fit solutions to the particular circumstances in a municipality (Homsy and Warner 2013).

Research finds that climate change efforts in municipalities are often driven by individual officials (Pitt and Congreve 2017). Top leadership does not have to initiate local climate policy, but it must be supportive (Young 2010; Bassett and Shandas 2010). Political champions can establish climate mitigation as a key mainstream objective (Bulkeley and Kern 2006; Pasquini et al. 2015), especially if local officials perceive a climate risk to the city (Mann et al. 2014; Gerber 2015). Otherwise, decision makers focus on their local context and near term pressures and have a propensity for inaction with regards to climate mitigation (Rickards et al. 2014).

Citizen activism

It is generally held that when the public is engaged in problem solving, more innovative community policies result (Forester 1999; Fung 2008). A number of statistical analyses seems to boost that contention with regards to general sustainability. Cities in which citizens participate more, as measured by signing petitions, demonstrating, and joining reform groups or neighborhood associations, as well as places with strong environmental advocates show increased commitment to sustainability (Portney 2013; Portney and Berry 2016). When citizens are engaged on official governmental committees, municipalities adopt more sustainability policies (Homsy and Warner 2015). Climate change mitigation policies are enacted more often in

places where voters already show environmental concern (Mann et al. 2014). Citizen action may work to influence the ways that public officials design and implement sustainability programs (Wang et al. 2014). Other proxies for citizen involvement, such as educational level and income show a positive correlation to sustainability (Opp et al. 2014). Local governments engage with initiatives based upon the public support for particular issues as well as officials' personal interaction with community leaders who initiate such action (Warbroek and Hoppe 2017).

However, research indicates that citizen participation has uneven results. Extensive citizen involvement in Dubuque, Iowa paved the way for numerous partnerships between the city and local advocacy groups that boosted implementation of its sustainability plan (McGalliard 2014). A study of four small- to medium-sized cities in the Netherlands found that multiple community actors, including citizens, drove climate action (Hoppe et al. 2016). However, the overall success of participation as increasing the legitimacy of proposals and protecting social justice has been weak due to the lack of methodical leadership and consensus on the importance of citizen participation as well as the limited framework within which processes are empowered (Fung 2015). For example, Baltimore engaged over 1,000 residents in the planning process, but no larger civic dialog or action emerged around climate adaption (Sarzynski 2018). Similarly, community opinion leaders in Australia's Sunshine Coast region failed to strategically engage in climate change adaptation policy discussions due to the lack of knowledge and connections to information sources (Keys et al. 2016).

Capacity

Local governments need fiscal resources and technical expertise to implement any kind of program or policy change, and more complex policy action, such as climate change

mitigation, requires even more intensive resources (Honadle 2001). A case study comparing Johannesburg and Cape Town in South Africa found that the latter's greater number of municipal staff has a positive impact on their greenhouse gas reduction effort (Holgate 2007). However, many city leaders, especially those in more resource constrained communities, are compelled to prioritize more immediate needs than future ones (Rajasekar et al. 2018). Less than half of bigger American cities have a regular budget line for sustainability (Wang et al. 2012). The Great Recession has only exacerbated local government capacity issues in the U.S., especially in places with greatest needs (Kim and Warner 2017) and U.S. federal policy to award many grants competitively exacerbates inequities between places (Lowe et al. 2016).

Many large-scale studies of the impact of capacity on climate change or sustainability focus on local fiscal proxies. For example, higher levels of local revenue per capita correlate to an increased likelihood of signing the Mayors' Climate Protection Agreement (Krause 2012) and increases the chances of conducting a greenhouse gas inventory or setting emissions targets (Homsy 2018). Fiscal stress (measured as own source income divided by median household income) is negatively associated with reaching climate change milestones in cities with mayors (Sharp et al. 2011). California cities with higher per capita tax revenues adopt more general sustainability policies (Lubell et al. 2009).

Missing from the literature across all three factors, and the impetus for the current research, is an understanding of the dynamics of the variables identified as motivating or challenging action (Hughes 2017). These analyses point to the statistical significance of local leadership as a driver, for example, but necessarily leave vague what aspects of leadership are important? Studies find that citizen action and interest groups are drivers, but what form might participation take? Capacity and fiscal health are a consistent issue, but the source of those

resources and how they are prioritized remains speculation. These are the questions the current study starts to explore.

Methodology: Identifying unlikely pioneers

To answer these, questions, I speak with a group of officials in, and examine documentary evidence from, a set of municipalities that can be classified as “unlikely pioneers.” To identify unlikely pioneers, I build from a statistical analysis I conducted for an earlier paper (author self-cite). Local officials were asked if their municipalities had undertaken a greenhouse gas inventory or set targets for emissions reductions for government operations or the community. That study used a series of six models to analyze a national survey of local sustainability policy adoption by municipalities. To find my unlikely pioneers, I use the most extensive model from that previous study, which focuses on the 1,352 places with fewer than 25,000 people. In that model, a multilevel, logistic regression examined whether certain economic, fiscal, demographic or governance factors correlated to an increased or decreased likelihood of municipalities undertaking such climate change action. The results are summarized in Figure 1, which only shows the significant variables. (Non-significant variables in that analysis were: participation in a multi-state greenhouse gas initiative, form of government, employment change, percent employment in agricultural sector, per capita income, and metropolitan status.)

[Insert figure 1 about here.]

From that model, I calculated, for this paper, the predicted probabilities that each municipality in my sample would have undertaken a climate change action. The “unlikely pioneer” designation was given to the places which had the lowest probability of action, yet did undertake action. I called city (or town) managers or mayors on this list starting with the one with the lowest probability and stopped when I had a sufficient number to enable an exploration that included geographic distribution, both council-manager and mayoral governments, and rural and suburban places. I had to reach out to 26 places to complete my sample of 12 communities. (The other 14 either refused to participate or did not return repeated requests.) I spoke with 15 people in the 12 places. I focus on local officials as those who answered the survey upon which the previously mentioned statistical model was based. Also, these officials have broad knowledge of policymaking in the municipality, especially in smaller places, and the power of agenda setting. As shown in Table 1, the unlikely pioneers in the sample included communities in Alaska, Florida, Iowa, Michigan, Minnesota, Nebraska, New Hampshire, Ohio, Texas, Utah, and two from Wisconsin. All contacts started with the mayor or city manager, sometimes I was offered another official in lieu of or in addition to the city manager. The semi-structured interviews lasted from 30 to 60 minutes. The following questions are from the interview guide.

- The sustainability survey indicates that you have a greenhouse gas inventory. Is that correct?
- What other local climate change policies have you adopted?
- What is the main reason you undertook these measures?
- How easy was it to undertake these measures?
- Who supported? Who resisted?
- What has been the biggest challenge?
- What role did citizen groups play?

- How did the residents react? The business community?
- Did the state government play any role? Funding? Advice? Support?

All interviews were recorded and professionally transcribed for coding and analysis. I openly coded the interviews using TAMS Analyzer, an open-source program, to identify the drivers. Initial codes were based upon literature and these were revised as themes emerged. The major themes and their components were: citizen role (environmental ethic, official committee roles, citizen leadership, and education), municipal leadership (responding to citizen ethic, economic development, environmental protection, feeling the impact, global perspective, grant availability, natural heritage, and saving money), and capacity (federal, state, local, grants, and utilities). These themes often intersected. For example, citizens as leaders rarely emerged. However, municipal leaders in two cases attributed their ability to act to the general environmental ethic of the citizenry. Secondary documentation, often provided by the informants, offered further details and understanding of the drivers. The objective of this procedure was not to attain statistical representativeness, but to explore and maximize the variability of answers. The quotes used to illustrate the perspectives have been edited for clarity. I did not offer confidentiality to the interview subjects, but I have not attributed particular quotes to specific people or places.

[Insert Table 1 about here]

Results: Drivers of climate change action

Pathways of local leadership

Three aspects of local leadership were identified as driving mechanisms for climate change mitigation action within these communities. First, in 11 of the 12 communities in the sample, leaders reframed climate change action as a way to save money through energy conservation. The public officials described climate action within a context of needing to maintain low tax rates and protect budget efficiency, either as part of their own management philosophy or at the urging of elected officials. One city manager, said of greenhouse gas reduction efforts, “there is a part of me who as a grandfather of three, sees the need to do this from a moral standpoint. [But] from a city manager standpoint in an inner ring suburb with property values dropping 40 percent, you’re looking to save a buck anywhere you can.”

Most of the respondents described retrofitting municipal buildings, upgrading street and traffic lights, or purchasing fuel-efficient vehicles as ways that climate change mitigation in the form of energy conservation have saved or could save money. In one community, the fiscal mandate put bounds around what could happen with climate change and sustainability. The manager there reported that a key line in their sustainability policy discussed the need for the fiscal soundness of any measures: “That was an important piece to our community. We are fiscally conservative. We want to look at sustainability; we want to focus on that. And we want to do it in a budget-neutral or a budget-friendly manner.”

This reframing of climate change action as fiscally sound allows local entrepreneurs to broaden the constituency for action among elected officials and the public. One manager put it in terms of balancing the local politics of a situation.

“We can hit both parties at the same time as long as we properly phrase the program. When we talk about energy audits, we can say that this is climate change related. But we’re really concerned about saving money and the climate change impact that this may have is the side benefit to it.”

The second, and a more unusual, driver of climate action uncovered during the interviews was a push for economic development. Three managers mentioned competitive pressures to attract new businesses that increase local tax revenues as an important motivator. These leaders reframed climate change action in particular, and sustainability action more generally, as a way to rebrand the community or to stand out from other municipalities in the hunt for development. For one city manager, it was a business attraction alternative because his state limited the kinds of economic development tools he can deploy. He needed a creative solution.

“When I came here, economic growth had been pretty flat; they’d lost employers. One of the challenges the council gave to me is that, ‘we’d like to see you go out there and see if you can turn the community around.’...

[Our state] is pretty conservative. The state government doesn’t give us a local option sales tax and we don’t have any property tax abatement powers, which are tools that communities have in other states [to attract investment] ... So we tried to differentiate ourselves by using energy sustainability, the green movement, and embracing those in order to attract economic development.

Interviewer: How well has that worked?

People come to town, and the first thing we ask is, ‘Why do you want

to come here?’ [They respond,] ‘Hey, you’re driving a brand-new Chevy Volt, the electric car plug-in. How many communities do that?’ It’s makes [us] competitive and gives us a media edge or economic edge or an attitude edge over other communities.

This city manager used a sustainability grant to hire a single person to oversee both sustainability and economic development. The fact that it was grant money eased the concerns of elected officials who were hesitant to try new and costly things. In the 12 months preceding the research interview, the economic development / sustainability director reported recruiting \$31 million dollars of private sector capital investment, including industrial and commercial enterprises as well as a \$5 million affordable housing complex. Other successes revealed in secondary documentation include finding that additional grants were written to purchase a plug-in hybrid vehicle and upgrade streetlights with high efficiency lamps. The economic development / sustainability director navigates the dual roles so well that when the initial grant ran out, the city council allocated general funds to keep the person in the position.

The city manager reports that leveraging customer and employee demands for greener products and processes led more businesses to invest in his community.

“Our city council has made it a policy priority to work on sustainability, primarily for economic development purposes. [We] actively recruit technology companies and that’s been a very important [value] to them, to see what we’re doing as a city and as a community on sustainability. We want to make sure that it’s very, very visible and that we can easily show a

potential investor that we are working on these issues here.

Interviewer: Have you seen any results from that yet?

Official: We have. Some smaller companies have made initial investments and we're one of two finalists for a billion-dollar data center. It was very important to them to see what we were doing and how interested the community is in sustainability."

Another manager reported that his city's sustainability agenda explains "maybe 50 percent [of our success with economic development]. I can't attribute everything to it. There's still location and other community attributes that attract business here."

The third aspect of local leadership is a personal one for managers. Eight of the officials interviewed said that they strongly believe in the need for action on climate change. These managers describe insinuating climate issues into the policy agenda when the opportunity presents itself and as the communities learned more about the issue.

"I've always thought [climate change] was a very, very important issue. There's no doubt that when I was first hired, it wasn't the top priority on the agenda. The city council had all kinds of other things they wanted me to address and the climate change thing sort of evolved over time."

Another official attributed local climate policy to his professional ethics. "It's my personal belief and conviction that as manager, this city, and any organization that I work with, should reduce its environmental impact." This city manager takes full credit for initiating climate

change policies in his community. But he admits that his enthusiasm does not give him a free hand; he must still sell local action to his elected officials, often on the basis of budget savings.

Subtle citizen action

In two communities, the experience of managers demonstrates that direct citizen involvement can have mixed results, especially in small towns. In the first community, the mayor had formed an energy commission, which included citizens, to guide energy conservation decision making. The committee provided political support and stability for local ideas. The experience was more mixed in another community. There, the energy committee was formed by local citizen petition rather than by the elected head of government. In this community, the manager reported that the energy committee, comprised of five very dedicated individuals, were the primary drivers of finding ways to cut power consumption in municipal operations and across the community, but functioned outside of traditional power circles. They did raise money for an energy audit of municipal buildings. However, the traditional power structure stunted their efforts. The manager used the example of a proposal to reduce the number of street lights, in an effort to save energy. The manager said the process, which should have resulted in a compromise, was derailed by small town personality differences, tradition, and elected officials' discomfort in trying something new.

“When we had the discussion, it was passionate and I would say that usually what happens in meetings like that some type of compromise is reached... ‘Can we turn off some street lights and see how it goes?’ But in this case board said, ‘No, we think they provide a public safety service so we

would like to keep them lit.’...

In small towns, it all depends on who makes the presentation. The energy committee at that point was headed by Kim, who is great in that she does a lot of great work for the town, but she’s one of those folks, like me, who hasn’t been here her whole life. The board has been here their whole lives [and to them] that light has always been there and they don’t know why we need to change it.

Also, all it takes is one person to spoil it and there is an individual in town who has a big heart and means well, but he asks a lot of questions and that doesn’t always go over well. He was one of the folks that supported shutting street lights off and so his support hurt. He’s not on our energy committee, but his [support], I think, colored the opinion of the board.”

In two other communities, interview subjects reported that citizens are not actively involved, but they created an overall environmental ethic that allowed local government action without much resistance. Citizens in a coastal city initiated a climate change discussion, which paved the way for policies by the staff who had grown concerned about sea level rise. The city manager said that his community’s small size and location contributed to a connection between citizens and nature that created a sense of responsibility.

“You don’t have to drive very far until you’re in nature. We have a lot of sportsmen and they actually are better stewards of the environment than a lot of people give them credit for. The responsible sportsmen are a good asset;

the fishermen are a good asset.”

The official said that many of his constituents are also involved in the timber industry, and they were reacting to the changes they were seeing in their environment. These shifts, which could be tied to climate change, directly impacted the local economy. The manager said that a lot of local people are “concerned that we are definitely seeing changes in the climate, more frequent storms and pests, like the spruce bark beetle that haven’t happened for many years, but are devastating forests around here.” He said that his local government engaged with federal research centers based in the region about the potential impacts of sea level rise and other changes to the fisheries industry as well to forests. This better understanding of the local and economic impact of greenhouse gas emissions provided the local leaders with the space to enact climate change mitigation strategies.

Another manager described that a local discussion around climate change was possible after an extended heatwave in the midwestern United States. For many people in this suburban community, the immediate experience with weather changes raised questions because the heatwave did not match the residents’ long-term experience with local climate. While not connected directly to their economic well-being, the city manager said that citizens noticed impacts on trees which all citizens found important to their quality of life.

“The discussion has been along these lines. We had the mildest winter in memory. There were very few snowstorms, very little snow plowing or disruption from winter weather. Then we had a drought, which is causing all kinds of issues related to the death of trees. Republicans and Democrats alike

love our urban canopies. When there's discussion of climate change, it's these unseasonable seasons that we're having that make people stand up and ask, 'what's going on?'"

This city manager was one of the officials who felt saw climate change as both a personal and professional responsibility. He used the local weather changes to sharpen discussions around the climate issue and it created an environment that helped pass a range of sustainability policies. It should be noted that in eight communities, managers and other officials were directly asked about the role of citizens and all of them essentially said that it was negligible. A number of those also experienced similar weather changes and no discussion of climate emerged.

Creative avenues for capacity

Most public officials reported that cost concerns push elected officials to make short-term, locally-focused choices, exactly as predicted by economic models when faced with a commons issue, such as climate change. Municipalities find it hard to look beyond their borders because, as one manager says, many elected officials are:

“...by nature, very conservative in regards to what they want to try unless there is almost a guarantee. They wouldn't have let me, for example, spend \$135,000 [for energy efficiency] out of the capital projects budget at a time they are laying off people, even though it would save money on utilities down the road. Without a grant, they weren't going to do that.”

The search for grants was a common theme among the informants. Such grants came from higher levels of government or from utility fees, which were earmarked by state governments to be used for conservation efforts. City leaders respond that few initiatives can get started from general operating funds, though as in the case of the combined sustainability/economic director described earlier, successful programs can be continued by leaders using local tax dollars.

Another important source of capacity in some communities is a municipally-owned utility, which as a revenue generating entity, provides funds to the government. Whether by mandate or as a local initiative, in three of the four municipalities with utilities, the excess in fees generated over production and distribution costs is used, in part, to fund energy conservation programs. Some local governments used the money for energy conservation efforts in municipal buildings or fleets while others sought to help local residents or businesses.

In addition, one city manager reported that owning the local power company sensitized local officials to issues of climate change and energy conservation. Their program has become one of the most progressive in the state and, the manager reports that at least some of the credit can go to having to deal with issues around the production and selling of electricity, “I think the [city] council is just aware of the issues more because we have our own electric utility.”

Discussion: Creating climate change action

In terms of leadership, local officials use the common strategy of linking this global issue to items on the local agenda (Betsill 2001). Policy entrepreneurs seek to broaden the audience and the diversity of positions that might support particular policy action, such as greenhouse gas reductions, (Spencer et al. 2017). Nearly all of the informants in this study seek to reduce

municipal costs through energy conservation and reframe the climate issue in those terms. Such co-benefit approaches are increasingly described in the literature as a way to put global commons issues on the local agenda (Mayrhofer and Gupta 2016). The approach provides incentives for local officials to move forward when pursuing actions with long-term and geographically diffuse benefits (Spencer et al. 2017). Previously described as important drivers of action in big cities (Corburn 2009) and among national policymakers in the developing world (Dulal 2016), the informants in this study reveal, not surprisingly, that their reframing of a global issue as a local one are the same in smaller places.

Another reframing strategy that links climate to the fiscal bottom line is in the hunt for economic development. Three municipal leaders are rebranding their communities as “green” and trying to attract companies with environmental values to relocate within their borders. There are many reasons why companies move to particular places, and environmental reputation is rarely, if ever, listed along with other considerations such as proximity to production or to customers or unionization, taxes, quality of life, and so on (Laulajainen and Stafford 2013). However, the literature finds that companies face dual pressures to be green: from their consumers (Esty and Winston 2006) and from their employees who want companies to come into line with their values (LoMonaco-Benzing and Ha-Brookshire 2016). A handful of municipal leaders seek to leverage those demands for the good of their municipalities and create a green image that distinguishes them from other competitors for development. They report that the strategy has had significant success, though a more rigorous evaluation of its efficacy is required.

Two-thirds of the respondents acted out of a personal belief about the importance of climate change mitigation. This might be another factor that sets this group of unlikely pioneers apart – leaders committed to greenhouse gas reduction. Most municipal officials are often slow

to undertake innovation, but the conviction of leaders is an important component of local government success (Moon and deLeon 2001). Young (2010) found that decisive authority was integral to rewiring the Chicago bureaucracy to encourage environmental action. Leaders can push for collaboration and to institutionalize the values needed for climate change action (Burch 2010). In this sample of unlikely pioneers, the communities tend to have smaller bureaucracies and so strong leaders may be more able to reshape institutions and policies to reduce greenhouse gases. However, they do not have a completely free hand to act. In most cases, the officials report having to work within the limitations of fiscally neutral or, in the case of economic development, fiscally positive actions.

Little leadership in these communities emerged from the citizenry, which may be emblematic of the challenges, such as support from municipal leaders, limited avenues of participation, and the lack of consensus on the importance of participation, facing effective citizen engagement (Fung 2015). In only one case, a citizen-formed energy committee came together and raised outside funding for an energy audit of municipal buildings, something that supported the efforts of the elected officials to save money. However, successful change requires voicing a broader vision and working within a system open to different perspectives (Onyx and Leonard 2011). Although the citizens had the support of staff leadership, elected officials were not open to changes, even small ones, that challenged traditional ways of operating.

The impact of citizens was more subtle in other places. Citizens did not engage actively, but rather created an ethic based on local circumstances. This ethic that gave the local officials the political cover to undertake climate change action. This is a subtler role for citizens that is likely missed in quantitative analyses that examine participation through proxies, such as voting patterns or petition signing. However, this lack of direct activism raises questions about the

sustainability of staff-initiated programs and policies. One community leader described a lessening of support for local sustainability efforts, when the mayor who started and pushed the action, passed away. In a study of European cities, the loss of key champions caused interest in climate to wane (Bulkeley and Kern 2006). The loss of important community leaders can similarly weaken climate or energy efforts (Martiskainen 2017). Policy goals must be institutionalized through the bureaucracy and not simply personalized through either official or community leadership (Moore 2000). In many of the cases studied here, the officials interviewed were largely the initiators of the climate mitigation policies. It will be an interesting long-term examination to see which, if any, of policies survive over the long-term.

Despite previous findings that statistically link a community's fiscal health to climate change action and sustainability, this qualitative analysis revealed that climate action is less about fiscal well-being and more about creative access to alternative sources of revenue. Most of the energy conservation actions described in this study resulted from external grants, at least initially. In four of the places, the research found that municipal utilities provide another source of fiscal capacity. Local governments, which own their own utilities, have a revenue generating entity and this money can be used to fund community priorities. In addition to funding, research from Europe finds that the provision of such public services directly allows local governments to shape infrastructure and public consumption (Bulkeley and Kern 2006). This is a compelling finding, especially for practice. Although the privatization of municipal utilities is rare in the United States (American Public Power Association 2013), most of the more than 2000 municipal utilities are in small communities, where climate change action and sustainability is less common. The findings signal that municipal utilities can provide a

path upon which cities can indeed take the lead towards action.

All of the informants in this study mentioned multiple factors that drive their decisions to act on climate change. As in most places, decision making in these small communities results from a complex set of elements. It is interesting to see how the components might come together. A recent study has cast doubt on the ability of simple reframing to move people, especially those not predisposed to support climate action, to embrace a particular policy (Bernauer and McGrath 2016). This runs counter to the self-reported success of local leaders in these communities. It might be that local leaders overestimate their ability to persuade constituents. Perhaps policy entrepreneurs finding themselves self-selected by supportive communities and with access to funding or technical expertise that give them the ability to act. Controlling for various factors or testing the interactions between them is an important next step in understanding why local governments act on global issues.

Conclusion

The research has confirmed some findings of previous studies in larger cities, that climate mitigation actions need to protect a community's fiscal bottom line and that strong leaders can accomplish a lot if they are dedicated to the issue. At the same time, I have revealed the mechanics of new drivers, that may or may not be particular to these unlikely pioneers. These include linking climate protection to economic development, the subtler role for citizens, and the need for alternative sources of revenue from grants or other revenue generating entities within government.

Four main limitations to this study stand out. The small sample size limits generalizability. Also, while local officials, especially in smaller places, tend to have a broad

understanding of policymaking in their communities, they are interested actors and this study does not include alternative perspectives from other local stakeholders. Third, such transitions towards sustainability and greenhouse gas reductions derive from a complex set of factors (Rohracher and Späth 2014; Hoppe et al. 2016), which cannot all be examined in depth through an individual qualitative study. Finally, by design, these communities deemed “unlikely pioneers” constitute a deviant sample. Some findings might only apply to those odd places that, for example, undertake climate change action without direct citizen involvement or despite an apparent lack of capacity. But this final limitation is also a strength of the exploration. Most small places do not engage in much sustainability or climate change mitigation. By examining pioneers in this unlikely group of actors, I start to identify from a practice perspective what it would take for all cities to lead, not just the biggest ones.

The limitations of the current study open the door to new research questions going forward. First, these findings need to be re-examined across a broader sample of communities. Are these the important factors that drive local action on commons issues? Of particular interest would be further investigation into the role of citizens. Is my finding about the absence of direct citizen involvement simply a sampling quirk? Or is there something about the governance or capacity in small U.S. cities and towns that makes citizen-led efforts challenging on this issue? Also, the role of municipal utilities as enablers of sustainability policies can be further explored. Many U.S. local governments also provide water service. Do the findings hold for water conservation efforts? And what other community values might the direct provision of services help protect?

Approximately 15 years ago, Kousky and Schneider (2003) asked if cities would lead the way on climate change. Their somewhat optimistic response hinged on

local governments doing what is best in their self-interest, such as saving energy dollars. This is a first step that the unlikely pioneers in this study have taken. However, the need to make climate change action “pay” at the local level presents a challenge as greater greenhouse gas reductions become required. There are limits to what a small community, on its own, can do to cut its energy bills and stay fiscally sound. Citizen support might allow committed climate change leaders to cut more deeply, but local officials are unadventurous by nature – and the need for external funding has been clearly demonstrated. Some communities can find ways, through grants and other revenue sources to take up climate change. However, as creative as some local governments, climate change mitigation may be started by communities, but municipalities can only carry it so far.

References

- American Public Power Association (2013) Q & A for Communities Considering the Public Option. Author, Washington, DC
- Andrews RNL (2006) *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. Yale University Press, New Haven, CT
- Bassett E, Shandas V (2010) Innovation and Climate Action Planning. *Journal of the American Planning Association* 76:435–450. doi: 10.1080/01944363.2010.509703
- Bernauer T, McGrath LF (2016) Simple reframing unlikely to boost public support for climate policy. *Nature Climate Change* 6:nclimate2948. doi: 10.1038/nclimate2948

- Betsill M (2001) Mitigating climate change in US cities: Opportunities and obstacles. *Local Environment* 6:393–406
- Birch EL, Lynch A (2012) Measuring U.S. Sustainable Urban Development. In: Starke L (ed) *State of the World 2012*. Island Press/Center for Resource Economics, pp 77–86
- Boswell MR, Greve AI, Seale TL, Mroz-Barrett M (2011) *Implementing Local Climate Action Plans*. Salt Lake City, Utah
- Bulkeley H (2010) Cities and the Governing of Climate Change. *Annual Review of Environment and Resources* 35:229–253. doi: 10.1146/annurev-environ-072809-101747
- Bulkeley H, Kern K (2006) Local Government and the Governing of Climate Change in Germany and the UK. *Urban Studies* 43:2237–2259
- Burch S (2010) Transforming barriers into enablers of action on climate change: Insights from three municipal case studies in British Columbia, Canada. *Global Environmental Change* 20:287–297. doi: 10.1016/j.gloenvcha.2009.11.009
- Campbell LK (2015) Constructing New York City’s Urban Forest: The Politics and Governance of the MillionTreesNYC Campaign. In: Sandberg LA, Bardekjian A, Butt S (eds) *Urban Forests, Trees, and Greenspace: A Political Ecology Perspective*. Routledge, New York, pp 243–260
- Carter R, Culp S (2010) *Planning for Climate Change in the West*. Lincoln Institute of Land Policy, Cambridge, MA

- Corburn J (2009) Cities, Climate Change and Urban Heat Island Mitigation: Localising Global Environmental Science. *Urban Studies* 46:413–427. doi: 10.1177/0042098008099361
- Davenport C, Rubin AJ (2017) Trump Signs Executive Order Unwinding Obama Climate Policies. *The New York Times* A1
- Dulal HB (2016) Making cities resilient to climate change: identifying “win–win” interventions. *Local Environment* 0:1–20. doi: 10.1080/13549839.2016.1168790
- Esty D, Winston A (2006) *Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage*. Yale University Press
- Fiorino DJ (2006) *The New Environmental Regulation*. The MIT Press, Cambridge, MA
- Forester J (1999) *The Deliberative Practitioner: Encouraging Participatory Planning Processes*. The MIT Press, Cambridge, MA
- Fung A (2008) Citizen Participation in Government Innovations. In: Borins S (ed) *Innovations in Government: Research, Recognition, and Replication*. Brookings Institution Press, Washington, DC, pp 52–70
- Fung A (2015) Putting the Public Back into Governance: The Challenges of Citizen Participation and Its Future. *Public Admin Rev* 75:513–522. doi: 10.1111/puar.12361
- Gerber BJ (2015) Local Governments and Climate Change in the United States: Assessing Administrators’ Perspectives on Hazard Management Challenges and Responses. *State and Local Government Review* 47:48–56. doi: 10.1177/0160323X15575077

- Hawkins CV, Krause RM, Feiock RC, Curley C (2016) Making meaningful commitments: Accounting for variation in cities' investments of staff and fiscal resources to sustainability. *Urban Studies* 53:1902–1924. doi: 10.1177/0042098015580898
- Holgate C (2007) Factors and Actors in Climate Change Mitigation: A Tale of Two South African Cities. *Local Environment* 12:471–484. doi: 10.1080/13549830701656994
- Homsy GC (2018) Size, Sustainability, and Urban Climate Planning in a Multilevel Governance Framework. In: *Climate Change in Cities*. Springer, Cham, Switzerland, pp 19–38
- Homsy GC, Warner ME (2015) Cities and Sustainability: Polycentric Action and Multilevel Governance. *Urban Affairs Review* 51:46–73. doi: 10.1177/1078087414530545
- Homsy GC, Warner ME (2013) Climate Change and the Co-Production of Knowledge and Policy in Rural USA Communities. *Sociologia Ruralis* 53:291–310. doi: 10.1111/soru.12013
- Honadle BW (2001) Theoretical and practical issues of local government capacity in an era of devolution. *Journal of Regional Analysis and Policy* 31:77–90
- Hoppe T, van der Vegt A, Stegmaier P (2016) Presenting a Framework to Analyze Local Climate Policy and Action in Small and Medium-Sized Cities. *Sustainability* 8:847. doi: 10.3390/su8090847
- Hughes S (2017) The Politics of Urban Climate Change Policy: Toward a Research Agenda. *Urban Affairs Review* 53:362–380. doi: 10.1177/1078087416649756

- Keys N, Thomsen DC, Smith TF (2016) Adaptive capacity and climate change: the role of community opinion leaders. *Local Environment* 21:432–450. doi: 10.1080/13549839.2014.967758
- Kim Y, Warner ME (2017) Geographies of Local Government Stress after the Great Recession. *Social Policy & Administration* n/a-n/a. doi: 10.1111/spol.12307
- Kousky C, Schneider SH (2003) Global climate policy: will cities lead the way? *Climate Policy* 3:359–372
- Krause RM (2011) Policy innovation, intergovernmental relations, and the adoption of climate protection initiatives by U.S. cities. *Journal of Urban Affairs* 33:45–60. doi: 10.1111/j.1467-9906.2010.00510.x
- Krause RM (2012) Political Decision-making and the Local Provision of Public Goods: The Case of Municipal Climate Protection in the US. *Urban Stud* 49:2399–2417. doi: 10.1177/0042098011427183
- Laulajainen R, Stafford HA (2013) *Corporate Geography: Business Location Principles and Cases*. Springer Science & Business Media
- LoMonaco-Benzing R, Ha-Brookshire J (2016) Sustainability as Social Contract: Textile and Apparel Professionals' Value Conflicts within the Corporate Moral Responsibility Spectrum. *Sustainability* 8:1278. doi: 10.3390/su8121278

- Lowe K, Reckhow S, Gainsborough JF (2016) Capacity and Equity: Federal Funding Competition Between and Within Metropolitan Regions. *Journal of Urban Affairs* 38:25–41. doi: 10.1111/juaf.12203
- Lubell M, Feiock RC, Handy S (2009) City Adoption of Environmentally Sustainable Policies in California’s Central Valley. *J of the Am Planning Association* 75:293–308. doi: 10.1080/01944360902952295
- Mann S, Briant RM, Gibin M (2014) Spatial determinants of local government action on climate change: an analysis of local authorities in England. *Local Environment* 19:837–867. doi: 10.1080/13549839.2013.798633
- Margerum RD, Robinson CJ (2015) Collaborative partnerships and the challenges for sustainable water management. *Current Opinion in Environmental Sustainability* 12:53–58. doi: 10.1016/j.cosust.2014.09.003
- Martiskainen M (2017) The role of community leadership in the development of grassroots innovations. *Environmental Innovation and Societal Transitions* 22:78–89. doi: 10.1016/j.eist.2016.05.002
- Mayrhofer JP, Gupta J (2016) The science and politics of co-benefits in climate policy. *Environmental Science & Policy* 57:22–30. doi: 10.1016/j.envsci.2015.11.005
- McGalliard T (2014) Advancing Sustainable Communities through Civic Engagement and Performance Measurement. In: *The Municipal Year Book 2014*. ICMA Press, Washington, DC, pp 53–65

- Moon MJ, deLeon P (2001) Municipal Reinvention: Managerial Values and Diffusion among Municipalities. *J Public Adm Res Theory* 11:327–352. doi: 10.1093/oxfordjournals.jpart.a003505
- Moore CH (2000) Kane Ditto and the Leadership Environment in Jackson, Mississippi. In: Bowers JR, Rich WC (eds) *Governing Middle-sized Cities: Studies in Mayoral Leadership*. Lynne Rienner Publishers, Boulder, CO, pp 9–25
- Nelson KL, Svara JH (2012) Form of Government Still Matters Fostering Innovation in U.S. Municipal Governments. *The American Review of Public Administration* 42:257–281. doi: 10.1177/0275074011399898
- Onyx J, Leonard RJ (2011) Complex systems leadership in emergent community projects. *Community Dev J* 46:493–510. doi: 10.1093/cdj/bsq041
- Opp SM, Osgood JL, Rugeley CR (2014) Explaining the Adoption and Implementation of Local Environmental Policies in the United States. *Journal of Urban Affairs* 36:854–875. doi: 10.1111/juaf.12072
- Pasquini L, Ziervogel G, Cowling RM, Shearing C (2015) What enables local governments to mainstream climate change adaptation? Lessons learned from two municipal case studies in the Western Cape, South Africa. *Climate and Development* 7:60–70. doi: 10.1080/17565529.2014.886994
- Pitt D, Congreve A (2017) Collaborative approaches to local climate change and clean energy initiatives in the USA and England. *Local Environment* 22:1124–1141. doi: 10.1080/13549839.2015.1120277

- Portney KE (2013) Taking Sustainable Cities Seriously: Economic Development, the Environment, and Quality of Life in American Cities, Second edition. The MIT Press, Cambridge, MA
- Portney KE, Berry JM (2016) The Impact of Local Environmental Advocacy Groups on City Sustainability Policies and Programs. *Policy Stud J* 44:196–214. doi: 10.1111/psj.12131
- Rajasekar U, Chakraborty S, Bhat G (2018) Climate Resilient Smart Cities: Opportunities for Innovative Solutions in India. In: *Climate Change in Cities*. Springer, Cham, Switzerland, pp 203–227
- Ramaswami A, Bernard M, Chavez A, et al (2012) Quantifying Carbon Mitigation Wedges in U.S. Cities: Near-Term Strategy Analysis and Critical Review. *Environ Sci Technol* 46:3629–3642. doi: 10.1021/es203503a
- Rickards L, Wiseman J, Kashima Y (2014) Barriers to effective climate change mitigation: the case of senior government and business decision makers. *WIREs Clim Change* 5:753–773. doi: 10.1002/wcc.305
- Rohracher H, Späth P (2014) The Interplay of Urban Energy Policy and Socio-technical Transitions: The Eco-cities of Graz and Freiburg in Retrospect. *Urban Studies* 51:1415–1431. doi: 10.1177/0042098013500360
- Romsdahl RJ, Atkinson L, Schultz J (2013) Planning for climate change across the US Great Plains: concerns and insights from government decision-makers. *J Environ Stud Sci* 3:1–14. doi: 10.1007/s13412-012-0078-8

- Sarzynski A (2018) Multi-level Governance, Civic Capacity, and Overcoming the Climate Change “Adaptation Deficit” in Baltimore, Maryland. In: *Climate Change in Cities*. Springer, Cham, pp 97–120
- Sharp EB, Daley DM, Lynch MS (2011) Understanding Local Adoption and Implementation of Climate Change Mitigation Policy. *Urban Affairs Review* 47:433–457. doi: 10.1177/1078087410392348
- Spencer B, Lawler J, Lowe C, et al (2017) Case studies in co-benefits approaches to climate change mitigation and adaptation. *Journal of Environmental Planning and Management* 60:647–667. doi: 10.1080/09640568.2016.1168287
- Stavins RN (2010) The Problem of the Commons: Still Unsettled After 100 Years. National Bureau of Economic Research Working Paper Series No. 16403:
- Svara JH (2011) The Early Stage of Local Government Action to Promote Sustainability. In: *The Municipal Year Book 2011*. ICMA Press, Washington, DC, pp 43–60
- Tabuchi H, Fountain H (2017) Bucking Trump, These Cities, States and Companies Commit to Paris Accord. *The New York Times* A12
- Tang Z, Brody SD, Quinn C, et al (2010) Moving from agenda to action: evaluating local climate change action plans. *Journal of Environmental Planning and Management* 53:41–62. doi: 10.1080/09640560903399772

- Uhl-Bien M, Marion R, McKelvey B (2007) Complexity Leadership Theory: Shifting leadership from the industrial age to the knowledge era. *The Leadership Quarterly* 18:298–318. doi: 10.1016/j.leaqua.2007.04.002
- Wang X, Hawkins CV, Lebreo N, Berman EM (2012) Capacity to Sustain Sustainability: A Study of U.S. Cities. *Public Administration Review* 72:841–853. doi: 10.1111/j.1540-6210.2012.02566.x
- Wang X, Wart MV, Lebreo N (2014) Sustainability Leadership in a Local Government Context. *Public Performance & Management Review* 37:339–364. doi: 10.2753/PMR1530-9576370301
- Warbroek B, Hoppe T (2017) Modes of Governing and Policy of Local and Regional Governments Supporting Local Low-Carbon Energy Initiatives; Exploring the Cases of the Dutch Regions of Overijssel and Fryslân. *Sustainability* 9:75. doi: 10.3390/su9010075
- Young RF (2010) The greening of Chicago: environmental leaders and organisational learning in the transition towards a sustainable metropolitan region. *Journal of Environmental Planning and Management* 53:1051–1068
- Zahran S, Grover H, Brody SD, Vedlitz A (2008) Risk, Stress, and Capacity Explaining Metropolitan Commitment to Climate Protection. *Urban Affairs Review* 43:447–474. doi: 10.1177/1078087407304688

