

## Asking People, Communities, and Companies

On August 3, 2015, President Barack Obama had an announcement he wished he did not have to make. With the Senate's failure to pass a cap and trade bill six years earlier, a law that would have limited carbon emissions, the White House had few options left to tackle the climate crisis. With the legislative option off the table, Obama turned to executive action that Congress could not easily obstruct. On that summer day, Obama stood in the East Room of the White House. In the front row sat Gina McCarthy, the head of the EPA. Obama had an ambitious plan to share, one that took advantage of a Supreme Court ruling that said planet-warming emissions could be regulated as a pollutant. From the podium flanked by civil society leaders, Obama heralded that "the EPA is setting the first-ever nationwide standards to end the limitless dumping of carbon pollution from power plants."

While Obama was optimistic about what his plan could do for the climate, he was sober about the politics of the issue. "Long before the details of this Clean Power Plan (CPP) were even decided, the special interests and their allies in Congress were already mobilizing to oppose it with everything they've got," he warned from the stage. Obama (2020, p. 483) recognized that executive action, especially regulations, would be threatened by the political pendulum: "GOP leaders considered the rollback of federal regulations a tier-one priority, right up there with lowering taxes on the rich."<sup>1</sup> It was this fear that led him to first pursue a binding law. "[T]he ultimate pathway to lasting change, we knew, lay in getting comprehensive climate legislation through Congress...Perhaps

<sup>1</sup> Perhaps this is with the benefit of hindsight.

most important, federal legislation would have genuine staying power, unlike regulations, which could be reversed unilaterally by a future Republican administration” (Obama, 2020, pp. 486–487).

Two years later, President Donald Trump stood before a crowd at the EPA headquarters. Surrounded by his cabinet members and basking in the applause, Trump appeared giddy. “I guess they like what we’re about to sign, huh,” he said as he turned to shake the hand of an ecstatic Scott Pruitt, a former fossil fuel lobbyist who now led the nation’s environmental watchdog. Trump was there to announce that his administration would begin the process of scrapping Obama’s climate rule. “Perhaps no single regulation threatens our miners, energy workers, and companies more than this crushing attack on American industry.” Trump turned to his left, where a row of coal miners and industry executives stood. “I want to acknowledge the truly amazing people behind me on this stage: our incredible coal miners. We love our coal miners.” The President went and shook the hands of each. “These people haven’t had enough thanks. They’ve had a hard time for a long time,” he continued. Trump picked up a sharpie and inked his name on the order. He held the pen above his head. “How about a miner? One of the miners. Who’s the miner back there? Only the miner,” searched Trump as he extended the trinket. Executive orders are fragile vessels. Obama was right.

The whiplash did not end there. While political commentary usually describes the Trump administration as eliminating Obama’s climate rule, the reality is more complex. The administration, a friend of the coal industry, would have undoubtedly repealed the rule in a blink if they could. However, they were constrained by the law. Remember the Supreme Court’s ruling from earlier? That decision meant the executive branch had to have a regulation in place that adhered to the letter of the law, which meant a rule that covered carbon emissions. So Trump’s team ginned up the cleverly named Affordable Clean Energy (ACE) rule. The administration’s lawyers devised a way to effectively eliminate Obama’s earlier rule by claiming the replacement would be cheaper. Trump’s EPA issued this rule in June 2019. However, the political pendulum swung back with a vengeance when a federal court struck down the replacement rule. As recently as 2022, the Supreme Court threw an additional curve ball with the *West Virginia vs. EPA* case, which limits the agency’s discretion to regulate pollution – back and forth, and back again.

This political pendulum swing, among other factors, undermines the government’s credibility. The consequences of this uncertainty are tangible for individuals, communities, and companies. In this chapter,

we show how concerns about the government's credibility manifest in the minds of the public, elected leaders, and firms. What we find is startling. Seventy-one percent of the national public is uncertain that the government would remain committed to an investment in their community; the outlook is worse for local officials and residents of fossil fuel regions, who are even more convinced that investments will be reduced in the future. Credibility concerns are acute and must be taken seriously if the energy transition is to succeed.

#### PERCEPTIONS OF GOVERNMENT CREDIBILITY

For the energy transition to succeed, individuals and their communities must believe the government will not renege on promises of assistance to dislocated workers and investments in new industries. Otherwise, people who incur costs may mobilize to obstruct climate policy. Perceptions of the government's credibility may not be objective assessments, but they nonetheless could influence political behavior, which makes them consequential to understand.

In this chapter, we measure perceptions of government commitment with a diverse set of surveys fielded in samples of the national public, youths, fossil fuel community county fairs, and local policymakers. Our questions investigate whether people find government commitments to be credible. Is the government likely to honor or break its commitments? Will the government support workers who need to transition into new careers? Are local government officials concerned about government commitment?

We also extend our analysis to companies and economic decision makers. We pull together studies from different disciplines on how firms respond to changes in government policy, which highlights the presence of commitment problems between governments and companies. We review recent empirical work assessing political uncertainty's impact on renewable energy development. Then we provide the ground-up perspective on green investments with surveys of local policymakers.

The conclusion to this chapter takes up issues that exacerbate credibility concerns like government trustworthiness; the consequences of the low visibility of government programs, what political scientist Suzanne Mettler (2011) calls the "submerged state"; and the ways that social identity shapes state-society relations.

**ALL EARS: REACHING INDIVIDUALS AND LEADERS**

In this chapter and throughout the book, we use surveys to reach individuals and leaders on the front lines of the energy transition. Surveys allow us to systematically compare attitudes, preferences, and beliefs across different groups to understand how people see the world. Here, we discuss the process to collect samples of the national public, youths, regions on the front lines of the energy transition, fossil fuel community fair-goers, and local policymakers. For those interested in why and how we reach these populations, read on; otherwise, feel free to skip straight to the results midway through this chapter.

**Nation-wide**

What the mass public thinks matters. Politicians, companies, and investors pay considerable sums to consultants who run polls and track social media to have a clearer picture of what people think. There is also historical and contemporary evidence that when leaders vote and formulate policy, they take the temperature of the public by reading the latest public opinion surveys (e.g., Page and Shapiro, 1983).

To capture the public's views, we take nationally representative samples of the American population. In total, we fielded eight national surveys with nonprobability quota samples that ranged from around 1,000 to 3,000 respondents. We worked with reputable survey providers to collect this data and implemented rigorous quality controls.<sup>2</sup>

**Youths**

Teenagers and young adults will play a crucial role in the energy transition. The next generation faces tough choices about their future occupations. At a personal level, these choices will influence lifelong career trajectories. At a planetary level, whether the next generation is inspired to work green jobs will influence the pace and success of the energy transition. As the environmentalist Bill McKibben articulated, "If you know a young person who wants to do something that's going to

<sup>2</sup> We contracted with the survey firm Qualtrics, and partnered with CAPS/Harris. There are slight differences in these survey providers' populations. Qualtrics includes all adults. CAPS/Harris includes registered voters. The online appendix provides further details and is available at the author's website ([bit.ly/climate\\_appendix](http://bit.ly/climate_appendix)).

help the world and wants to make a good living at the same time, tell them to go become an electrician” (McKibben and Klein, 2022).

To reach youths, we collected a sample of the American public that we calibrated to have half of the respondents between 16 and 24 years of age. These respondents, especially those under 18 years, are often left out of national surveys. We reached 573 teenagers and young adults.<sup>3</sup>

### Energy Transition Front Line Regions

National surveys have their value, but often they leave out the voices of people in places hit hardest by economic transitions. These areas tend to be rural, while national samples reflect the views of people in more populous locales. The reasons for this underrepresentation are myriad and will be familiar to those who have paid attention to debates over why polls have performed poorly in forecasting recent American elections. One challenge is survey nonresponse, where a particular segment of the population is unlikely to respond to pollsters. But the other challenge is mechanical; there are fewer people in rural areas, so any national survey by design will only include a handful of respondents from these regions. With so few respondents, it is hard to know if one’s measurements are close to the truth or random noise.

We solve this challenge with targeted regional surveys that ensure adequate representation from the Gulf Coast, the Industrial Midwest, New Mexico, and the Southwest Pennsylvania area.<sup>4</sup> These four regions are the target of the Roosevelt Project, which aims to develop effective transition plans for these communities and with whom we fielded the surveys (Ansolabehere et al., 2022).<sup>5</sup> The regions capture differences in geography, exposure to climate change, and challenges as well as opportunities in the energy transition (Moniz and Kearney, 2020).

**GULF COAST.** The Gulf Coast spans from Houston to New Orleans and is home to considerable oil and gas production and associated petrochemical industries. The Gulf Coast’s reliance on fossil fuels makes the area economically vulnerable to the energy transition. One policymaker we surveyed from Louisiana said, “I fear [climate policy] is completely politically driven and the cost to communities that depend on gas and oil

<sup>3</sup> In subsequent survey experiments with this sample, we block randomize treatment conditions by youth and adult status.

<sup>4</sup> Various studies provide evidence of the value of targeted samples (Gaikwad, Genovese, and Tingley, 2022a,b; Gazmararian, 2022a,b,c; Olson-Hazboun, 2018).

<sup>5</sup> See <https://ceepr.mit.edu/roosevelt-project/>.

exploration, processing, and delivering, will be completely overlooked and forgotten,” while another worried about how to “address [the] negative effects to investment with respect to lost jobs and economic value of existing industry.” However, the Gulf Coast cannot afford inaction on climate change because of its vulnerability to sea level rise and intensified hurricanes.

**INDUSTRIAL MIDWEST.** The Industrial Midwest contains Michigan, Ohio, and Indiana. These states are the historical home to American steel and automotives. However, this area has undergone severe deindustrialization. Since 1980, 187 motor vehicle plants have closed in these three states, with painful consequences (Foster et al., 2022). The economists Anne Case and Angus Deaton (2020) document how the deterioration of job opportunities for people without college degrees in places like the Industrial Midwest has given rise to “deaths of despair” from drug and alcohol poisonings, suicide, and chronic diseases. When asked about the energy transition, one local policymaker from Ohio replied, “many other more pressing issues are affecting people. For example, opioids, homelessness, lack of mental health treatment, crime, drug dealing, etc. All of those are higher immediate priority.” Green jobs have been hailed as opportunities to revitalize this region (e.g., Economist, 2009). The Industrial Heartland also has automotive manufacturing that will be impacted by the shift to EVs as part of the energy transition. Residents express in interviews a mix of fear of the unknown but also hopefulness about the potential benefits from this transition (Foster et al., 2022).

**NEW MEXICO.** Over 1,500 miles away from the Industrial Midwest is New Mexico. This arid and mountainous state sits at the intersection of the old fossil fuel economy and the green future. There is a legacy fossil fuel industry alongside a solar industry that continues to expand. The dual presence of these industries creates opportunities and challenges for decarbonization. New Mexico’s comparative advantage in solar distinguishes the state from the other regions.

**SOUTHWEST PENNSYLVANIA AREA.** The Appalachian mountains cut through this region, which includes Southwest Pennsylvania and parts of Ohio and West Virginia. This is fossil fuel country. Coal was once king, but now gas – unlocked by hydraulic fracturing – takes the throne. Petrochemical industries are also taking hold, with multibillion dollar developments like the ethane cracker plant in Beaver County, Pennsylvania, that will break down gas into the building blocks for plastics. This region has also felt the effects of coal’s decline and saw the meager

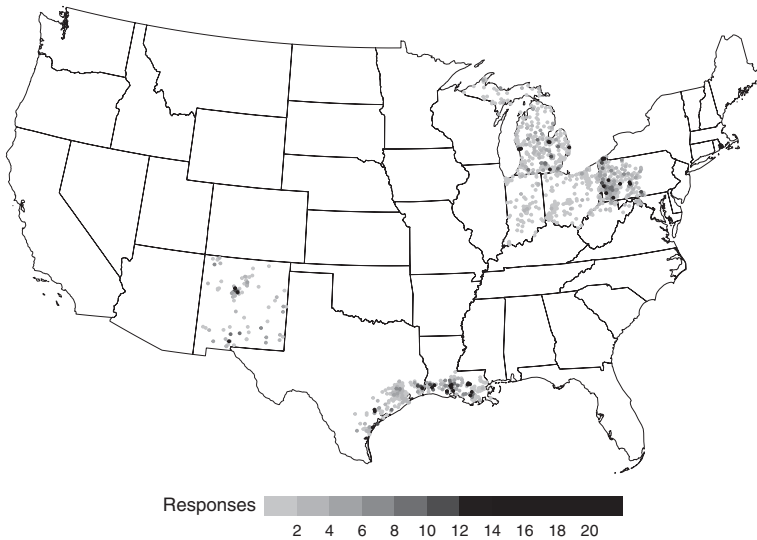


FIGURE 3.1 Location of survey respondents in the Gulf Coast, Industrial Midwest, New Mexico, and Southwest Pennsylvania area regional samples.

support offered by the federal and state governments. One local official from West Virginia we surveyed said, “my concern is that if we do not do anything, our economy will continue to perform poorly, and employment and population will continue to decline, as it has done for 70 years.”

We successfully recruited over 1,000 individuals from each region, except for New Mexico, where we targeted 300 respondents.<sup>6</sup> We deliberately recruited people who live outside of core urban counties.<sup>7</sup> This required substantial resources and dramatically helped to reach rural respondents who are often underrepresented. Figure 3.1 uses the ZIP codes of the respondents in our regional samples to show where they reside.

### Let’s Go to the Fair

We also fielded highly local surveys to reach the voices of individuals in rural fossil fuel communities that can be difficult to capture. These

<sup>6</sup> Surveys fielded with Qualtrics in December 2021–April 2022.

<sup>7</sup> We set a quota for two-thirds of respondents to come from rural areas. This required relaxing some quotas, such as Hispanic because these regions have different racial demographics.

surveys took place in the Southwest Pennsylvania area, which is home to multiple types of fossil fuel extraction such as coal, oil, and gas.<sup>8</sup>

To reach people who might not traditionally answer surveys, Alex set up booths at county fairs (see Figures 3.2 and 3.3). This builds on Alex's earlier work that used surveys at fairs in the region.<sup>9</sup> County fairs are significant cultural events that attract a broad cross-section of the community. While it is undoubtedly a peculiar sight for residents to see a graduate student from Princeton University at their fair, the community welcomed Alex, even if they were somewhat baffled at times.<sup>10</sup> Although this is a convenience sample, the respondents generally match local demographics in terms of gender, age, and party affiliation. The results we present also weight the respondents, so they are representative of the county in terms of age, gender, race, income, and education.<sup>11</sup> The first survey took place in the summer of 2021 and recruited 249 participants across two fairs. Alex returned the following summer with a new survey and collected 358 responses. Residents were surprised to see him return since their typical experience is that their area is ignored or people fly through for a one-off project. Sustained engagement is vital to build trust and foster mutual understanding.

### Local Leaders and Credibility

The success of the energy transition will be in the hands of thousands of local leaders in communities around the world. These individuals on the ground will have crucial decisions, such as whether to support new renewable energy projects or direct workforce programs to emphasize green jobs. Local officials will also be critical conduits linking compensation and investments from the federal government to tangible community projects.

We surveyed elected officials in American counties, municipalities, and townships to understand the perspective of local policymakers. We partnered with CivicPulse, a nonprofit, to field the survey of local political

<sup>8</sup> We do not identify the particular county to maintain the confidentiality of the respondents.

<sup>9</sup> See Gazmararian (2022a,b,c).

<sup>10</sup> Participants received \$5 for a five to ten-minute survey.

<sup>11</sup> We use data from the five year American Community Survey on the joint distribution of age, gender, race; the joint distribution of age, gender, and education; and the distribution of income to construct weights with raking.





FIGURE 3.2 County fairgrounds in Southwest Pennsylvania. August 2021.  
Source: Alexander F. Gazmararian.

leaders across the United States.<sup>12</sup> We focus on local officials in charge of policy. These individuals are the top elected officials or governing board

<sup>12</sup> CivicPulse handles recruitment, survey administration, and respondent de-identification. Visit [www.civicpulse.org](http://www.civicpulse.org) for additional background. We worked with this organization because they have rigorous protocols to respect the limited time of



FIGURE 3.3 Southwest Pennsylvania county fair survey enumeration. August 2022. Source: Colleen R. Nelson.

members of their locality. They set their communities' agendas and are accountable to voters in elections.

Localities will differ in how they feel the effects of the energy transition. For some counties, the decision is whether to permit a solar farm. For others, the question is how to manage the closure of a coal mine. We expend considerable resources to capture the voices of policymakers from a multitude of communities. Our first sample includes 405 elected leaders who are representative of all communities across the United States.

Our second sample targets fossil fuel communities, though the energy transition will have effects that extend beyond these industries.<sup>13</sup> Since economic shocks reverberate beyond county borders, our geographic scope is states with coal, oil, and gas employment. The sampling frame includes only rural counties. Rural areas tend to have the highest reliance on extractive industries, such as Carbon County in Wyoming, whereas cities and suburbs have more diversified economies, such as Harris County in Texas, home to Houston. This undoubtedly includes and

policymakers, transmit knowledge from scholarship back to communities, and foster productive relations between elected leaders and researchers.

<sup>13</sup> There is debate over what constitutes an energy community (e.g., Raimi and Pesek, 2022).

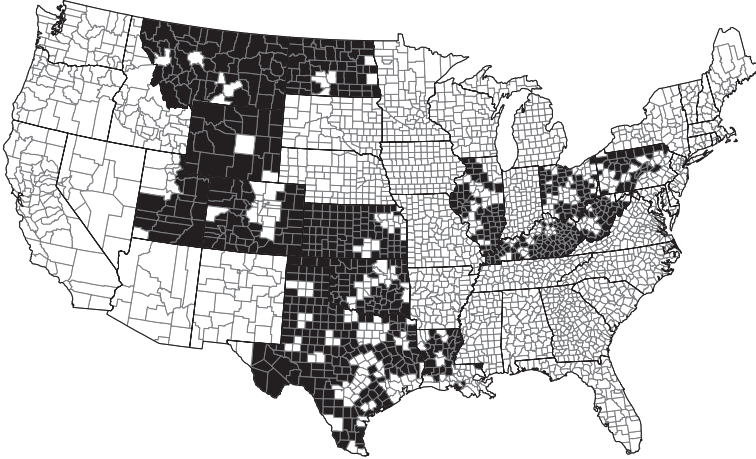


FIGURE 3.4 Counties in grey are fossil fuel communities on the list of places where we contacted local officials to participate in the survey. Alaska is included but not shown.

excludes some localities that are distant and near fossil fuel production. However, practical and budgetary constraints necessitate a balance between a narrow and broad sampling frame. Figure 3.4 shows the locations of these fossil fuel counties where we contacted local policy-makers to take the survey.<sup>14</sup> We reached 205 local officials from these communities.<sup>15</sup>

#### HOW PEOPLE THINK ABOUT CREDIBILITY

How do the public and local leaders think about credibility? Descriptive questions like this are fundamental yet often understudied. We present the results from various questions and samples that help to make sense of how credibility concerns manifest, if at all.

<sup>14</sup> CivicPulse protects the identity of the counties surveyed.

<sup>15</sup> We fielded the survey in 2022, the year the IRA passed. Part of the national sample took place before the IRA's passage, while much of the fossil fuel community sample was collected after the bill became law. If anything, the law's passage might make the government's credibility appear more solid than earlier promises of action, which would introduce bias against detecting evidence of credibility challenges.

### Commitment to Local Investments

Place-based investments are at the center of economic transitions, whether the investment is part of a plan to support a fossil fuel community or is to develop green energy in a place previously distant from the energy sector. What does the public think about the credibility of government promises to invest in local economic development? Do people think these promises are iron-clad guarantees, or are they worried about reversal?

Across the populations we surveyed, we asked the following question to measure beliefs about government credibility:

Consider a promise by the federal government to make a 10-year investment for economic development in your area. Over the next 10 years, do you think the government would be likely to: *Reduce the investment; Keep the investment at the same level; Expand the investment*

The question focuses on the long-term, a ten-year investment. This reflects how the energy transition will require sustained support. The answer options include the possibility that the government could expand its commitment, which avoids bias that would exaggerate credibility concerns. We also ask the respondent to rate her confidence in her answer.<sup>16</sup>

The results in Figure 3.5 are striking. Over 70 percent of the national public is uncertain whether the government would keep an investment in their community at the same level or think that reversal is likely.<sup>17</sup> Local policymakers, youths, and county fairgoers are the most certain that investments would be reduced compared to the national public. These differences across the samples appear on the right-hand side of the figure, which shows the average response across the groups. Local officials are apprehensive about commitments, which may be due to their greater political awareness.

Since Alex fielded these surveys at county fairs, he could witness contemporaneous reactions to the questions. These responses, while anecdotal, are informative of the considerations top of mind as respondents reason through the question. One person said, “it’s hard to answer if you trust the government to do anything they promise. I think they’re

<sup>16</sup> The follow-up asks the respondent to rate whether they were “very” or “somewhat sure” about their answer. We did not include “not sure” to keep the scale manageable.

<sup>17</sup> Fielded August 2022 with CAPS/Harris ( $N = 3,018$ ).

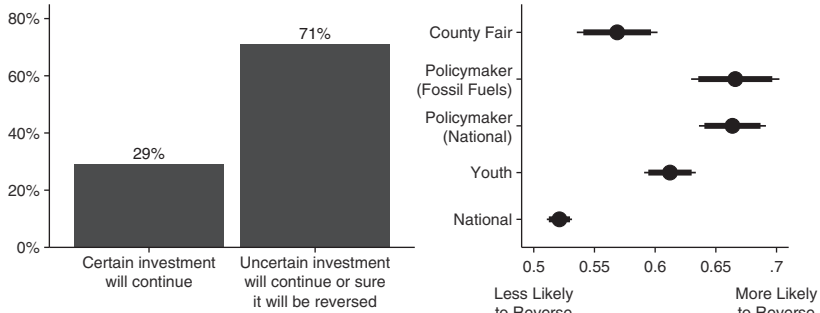


FIGURE 3.5 Perceptions of whether the federal government would keep its promise to make community investments. The left plot shows the percentage of the national public that is certain an investment would continue, or is uncertain or sure it would be reversed. The right plot shows the average response in each sample where  $\circ$  represents that one is very sure an investment would be expanded and  $\times$  denotes that one is very sure an investment would be reduced.

just going to lie to us.”<sup>18</sup> Another said, “I put reduce because they [the government] always say they’ll do more in the beginning.”<sup>19</sup>

These answers reflect a recognition of the inability of the government to make credible promises. No matter how one slices the data, there is always a segment of each sociodemographic or political group that thinks the investment is likely to be reduced in the future or is uncertain that it would stay the same. When we use a linear regression model to tease out patterns in the data, the expected correlations appear. Republicans and Independents, for example, are more skeptical of the federal government’s promises than Democrats.<sup>20</sup> Key stakeholders in the energy transition are doubtful of long-term support from the government.

### Trust and Credibility

Next, we explore how much trust matters for credibility. The vast literature described in Chapter 2 would indicate that the answer is a great deal. To rigorously assess this question, we analyze a survey where we simultaneously had a question about trust in the federal government

<sup>18</sup> August 11, 2022.

<sup>19</sup> August 12, 2022.

<sup>20</sup> Linear regression model with controls ( $p < 0.001$ ). See the online appendix for information on control variables. This could be an artifact of the Democrat-controlled White House at the time of our project.

and beliefs about the government's commitment.<sup>21</sup> Specifically, the commitment question asked how likely the federal government would be to follow through on a promise to send resources to state and local governments to combat climate change.

Only 17 percent of the national public thought the government would keep its promise to help states and localities tackle global warming! How does trust relate to these perceptions? To separate the effect of trust while keeping other factors constant that could also explain this belief, such as partisanship or gender, we estimate a linear regression model. This allows us to include control variables that account for other respondent characteristics that might influence their attitudes, such as income or race. We find that trust has the strongest correlation with beliefs about government credibility.<sup>22</sup> The correlation of trust with beliefs about credibility is even stronger than that of identification with the Republican party or the belief that global warming warrants strong action. Since our analysis accounts for other characteristics of the respondent, we can be more confident that trust has a unique correlation with perceptions of credibility.

## The Weight of History

### *Promises Kept*

A promise by the government does not take place in a vacuum. There is a historical context. There might be a reputation of kept or broken promises that could serve as the foundation to make credible commitments or weaken them. To understand how history weighs on the present, one must know how people view the government's track record of keeping promises. If there is a trail of broken promises, distrust of the government begins to make more sense.

Questions that probe an individual's trust in the government often focus on the present. We wind back the clock to focus on perceptions of previous actions. People likely do not have a precise tally in their minds of the promises kept and broken. However, there should be a general impression. To assess this impression, we ask the national public and local officials, "As far back as you can remember when it comes to economic policies that impact your area, has the federal government: Always kept its promises; Sometimes kept its promise; [or] Rarely kept its promises."<sup>23</sup> Since beliefs about kept promises might be colored by

<sup>21</sup> Fielded August 2022 with Qualtrics ( $N = 2,015$ ).

<sup>22</sup> Linear regression model with controls ( $p < 0.001$ ).

<sup>23</sup> National survey fielded September 2022 with CAPS/Harris ( $N = 2,001$ ).

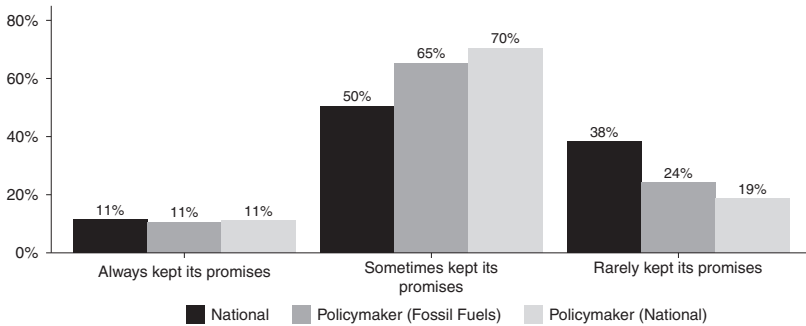


FIGURE 3.6 National public and local policymaker perceptions of whether the federal government has always, sometimes, or rarely kept its promises about economic policies that impact one's community.

partisanship, we ask the respondent to consider a long swath of time that covers multiple political administrations so the question captures the weight of history as opposed to being a referendum on the party in office.

The national public and local officials think the federal government has broken many of its promises to help their communities. Figure 3.6 shows how only a fraction, about 11 percent, believe the government has always kept its promises. The most common answer is that the government sometimes keeps its promises. When we examine the correlations between the perception of kept promises and the respondent's background characteristics in the national sample, we see that Republicans, Independents, and rural residents think the government has broken more promises compared with Democrats and urban residents.<sup>24</sup> Overall, these responses provide evidence of how worries about the government's credibility might arise given its history of past promises.

### *Past Transitions*

While the previous question asked for reflection on the government's history of promises, of relevance are perceptions of how past transitions went. Do people believe the government supported workers and communities impacted by past dislocations? Do people think these communities are better or worse off today?

The local officials we surveyed expressed doubts about the level and effectiveness of transitional support. A Democrat from Arizona said,

<sup>24</sup> Linear regression model with controls ( $p < 0.05$ ).



“[our] a coal-fired plant, was shut down three years ago. Very little assistance was given for retraining and transition support for the citizens and [our city].” A Republican from a part of Utah that produces fossil fuels said, “environmental legislation has not had a great track record of offering employment or job creation to communities and areas impacted by such change.” A Democrat from West Virginia coal country lamented, “the past efforts to retrain miners for other industries have been a miserable failure. More talk than action with positive measurable outcomes.” The national public may also share these beliefs.

In a national sample, we ask how much support was given in past transitions and whether the community is better or worse off today.<sup>25</sup> We focus on five past and ongoing transitions: coal in Appalachia, lumber in the Pacific Northwest, automobiles in the Industrial Midwest, tobacco in the South, and textile manufacturing in the South. Of those who had heard of these transitions, the most common answer across all industries was that there was “a little” or “a moderate amount” of compensation and investment.<sup>26</sup> This subset of the public perceived tobacco and coal as receiving the least support, whereas steel and auto manufacturing received more compensation. Democrats were more likely to say that there was assistance compared to Republicans.<sup>27</sup> In terms of whether the transitions succeeded, the average response was that communities are no better off today than before. However, people ranked coal as being worse off today than before. Partisan differences emerged again. Democrats held a more optimistic view of the track record of past economic transitions.

These results show that people believe the government has not done much in the past to help places that have undergone economic transitions. The public also sees places impacted by energy transitions, like coal country, as a cautionary tale. These historical perceptions may shape current assessments about whether the government would follow through on its promises of compensation and investments and whether these tools would be effective. For example, in a survey of the American public, including youths, we found that around 70 percent anticipated workers would receive no to little government support to help them if an economic transition impacted them. These expectations did not differ regardless of whether the cause of dislocation was technological change

<sup>25</sup> Fielded October 2022 with CAPS/Harris ( $N = 2,006$ ).

<sup>26</sup> Around 20–25 percent had never heard of these transitions.

<sup>27</sup> Linear regression model with controls ( $p < 0.05$ ).



or government policy. These beliefs are background factors that shape current assessments of government credibility.<sup>28</sup>

### U-Turn or Green-Turn?

At the tail end of the summer of 2022, the United States passed a sweeping climate law, the Inflation Reduction Act (IRA), which contained ambitious investments in green energy. The legislation eked through along partisan lines; no Republican in the Senate voted for it, a rebuke to those who had hoped and advised to pass bipartisan legislation that might be more durable. While our conclusion analyzes the IRA in greater detail, here we assess how the public perceives the durability of the IRA. Do people anticipate that different groups will attempt to reverse the legislation in the future?

The month right after the climate law passed, we asked the national public about its future.<sup>29</sup> Over the next ten years, would Republicans, Democrats, fossil fuel companies, and renewable energy companies be likely to try to reverse the law, remain neutral, or support it?<sup>30</sup>

Figure 3.7 presents the results. About half of the respondents think fossil fuel companies and the Republican Party would try to reverse the law. By contrast, the public thinks the Democratic Party and renewable energy firms would continue to support it. When we explore the answers

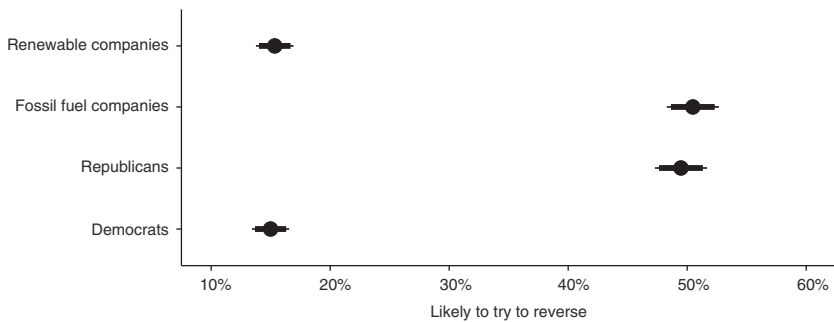


FIGURE 3.7 Share of the national public who think that renewable companies, fossil fuel companies, Republicans, and Democrats are likely to try to reverse the IRA.

<sup>28</sup> Fielded spring 2022 with Qualtrics ( $N = 1,136$ ).

<sup>29</sup> Fielded September 2022 with CAPS/Harris ( $N = 2,001$ ).

<sup>30</sup> We also included independents but omit them for exposition. We randomized the order the groups are presented to avoid bias from ordering effects.

broken-down by the party affiliation of the respondent, partisan differences emerge. Interestingly, Democrats think the Republican Party is more likely to reverse the legislation than Republicans think of their own party.<sup>31</sup> In other words, Republicans, on average, think that their party will support or remain neutral, but Democrats are more skeptical.<sup>32</sup> This could be a sign of lock-in effects as discussed in Chapter 2. Republicans may anticipate some benefits from the law, even though Democrats are currently skeptical of the Republican Party's support because of the law's partisan passage. We found evidence that Republicans in fossil fuel areas see some benefits from the law, even if they have reservations. Rusty Bell, the Republican commissioner of Campbell County, Wyoming, criticized the partisan passage of the law, the lack of permitting reform, and focus on green energy, but said, "there's some carbon capture dollars in there, and I know that that's going to help us."<sup>33</sup>

#### LESSONS FROM LISTENING TO LOCAL LEADERS

Surveys are a valuable tool because they provide a standardized measure of beliefs. However, in some cases, added context is needed to make sense of opinions. To better understand how credibility challenges manifest, we asked an open-ended question of local policymakers. We wanted to know if government credibility impacted their day-to-day activities. Our question asked, "[w]hat effect would uncertainty over possible reductions or changes to federal government investment programs have on economic development in your area?" The results are fascinating and illustrate the sources and impacts of credibility challenges.

#### Pendulum Swing

One theme that repeatedly emerged was the recognition that changes in political control inject uncertainty into the government's commitments. A Democrat from Hawaii provided what would be a textbook claim in the political science literature on institutions: "inherent in our lengths of office, there is a pendulum swing of political leanings. New administrations and congressional bodies change their minds." A Republican from part of Arkansas with oil and gas named elections as a source of

<sup>31</sup> Linear regression model with controls ( $p < 0.001$ ).

<sup>32</sup> Republicans are also slightly more likely than Democrats to think that fossil fuel companies would support the IRA or remain neutral ( $p < 0.1$ ).

<sup>33</sup> Interview, September 22, 2022.

uncertainty, “there is always uncertainty with federal regulations and investments with each election cycle.” An independent from Wisconsin warned, “with partisan politics as they are today, every time the pendulum swings, the party in power wants to tear down what the previous party in power started.”

Even though the prompt did not mention climate policy, one Democrat in a part of Colorado that produces fossil fuels described how these credibility concerns would impact investments made as part of the IRA:

Polarization along party lines creates uncertainty for all federal programs, which are apparently open game when administrations change from one party to another. We cannot expect the next administration to continue a program, regardless of its individual merits...With IRA funds coming to our state (Colorado), our county will be looking to address the need for low to net zero carbon affordable housing, scale-up of the grid infrastructure by 4x to accommodate electrification, electrified public transportation and charging networks, etc. Our priority is meeting our aggressive climate action goals. A change in Fed administration to [a] climate change denying, fossil fuel centric position will dramatically impact our goals and development of these solutions.

Another local official, a Democrat from an oil-rich part of Texas, said that the impact of uncertainty would be “minimal overall, but it would definitely affect green areas such as solar and wind.” This perception is bipartisan. A Republican also from a fossil fuel region in Colorado acknowledged how his county could not count on the continuance of federal investment. “The current level of help does not seem sustainable; infrastructure, stimulus money, Debt relief. I want no more Trump, but I expect the majority party to change at least once in the next ten years. Then promises change too.”

### **Promises and Trust**

Some local policymakers expressed skepticism that investments would materialize. An Illinois Republican in the fossil fuel community sample said, “our county is a very rural area, and consequently, we receive little in the way of federal grants. Like counting on rain for the crops, local folks don’t count on anything until it’s in hand.” A Republican official from neighboring Indiana echoed this sentiment, “we would not count our chickens until they were hatched. Promises mean nothing. Decisions shouldn’t be made based on promises.” Credibility is salient for these local officials.

### Impact of Uncertainty

The impact of uncertainty is profound. Local governments often operate on limited resources, which makes durable and predictable federal support essential for their operations and plans. One Democratic official in Kentucky coal country said,

[m]y county is already a small, rural county with limited resources and a shrinking population. The tax base is aging, and wages still lag behind neighboring areas. Any reductions or negative impacts to federal government investment programs would have an equally detrimental effect on economic development ... Several recent projects ... and local industries rely on federal tax dollars to be fulfilled over the next 5–10 years.

Uncertainty at the federal level can also chill investments by private firms. One local policymaker, a Democrat from Illinois, answered that “the private sector often makes investments in anticipation of federal investments, so big changes in the federal timeline hurts area investors and municipalities that plan on the federal role.”

### Weight of History

One theme that emerged, especially among local officials in rural areas, was that the federal government had overlooked their communities. While uncertainty was significant, they have not received investments in the first place. The tenor and content of these grievances echoes what political scientist Katherine Cramer (2016) calls “rural resentment”; that is, the feeling that rural areas don’t get their fair share of resources and are looked down upon by outsiders. One Republican in Kentucky coal country had a strong reaction: “what economic investments? The federal government has invested about \$500k in our county in the last 20 years from grant awards only. They do not care about small rural counties. Larger populated counties receive all the funding.” A Republican in Illinois expressed frustration at the inattention his community has received but was optimistic about what the effects of an investment would be if it were made, “[Our city] seems to have long been forgotten regarding federal investment ... We need the government to believe in the area as strongly as our area leaders do.”

This sentiment overlaps with the concerns raised earlier about the government not keeping its promises. One local official, a Republican in a part of Pennsylvania that produces coal, oil, and gas, said, “...we are only acknowledged by the politicians when they want something in our area.

Our concerns are often ignored, or we are told they will be addressed only to never be talked about again.”

These responses from local officials highlight how concerns about government commitment are salient and have tangible impacts on economic development. Uncertainty stems both from political institutions and electoral incentives but also from low trust in the government. Local policymakers recognize the benefits of investments but are also clear-eyed about how the tide could shift with the next swing of the pendulum.

### COMPANIES, CAPITAL, AND GREEN INVESTMENTS

Credibility challenges also arise in firm investment decisions. Across all industries and sectors, firms might worry about the effect of future government regulations or economic conditions on their investments. To assess the magnitude of uncertainty for firms, we asked local policymakers to rank how sure they are that local business owners would raise concerns about a decrease in federal support for local investment. Elected officials are an important intermediary between businesses and the federal government, so these individuals should have a good barometer of the uncertainty that firms face. We also posed the question in a national survey to provide a benchmark.<sup>34</sup>

Figure 3.8 shows that most local policymakers are very or somewhat sure that business leaders would raise concerns about a reduction of support in investments by the federal government – that is, credibility.

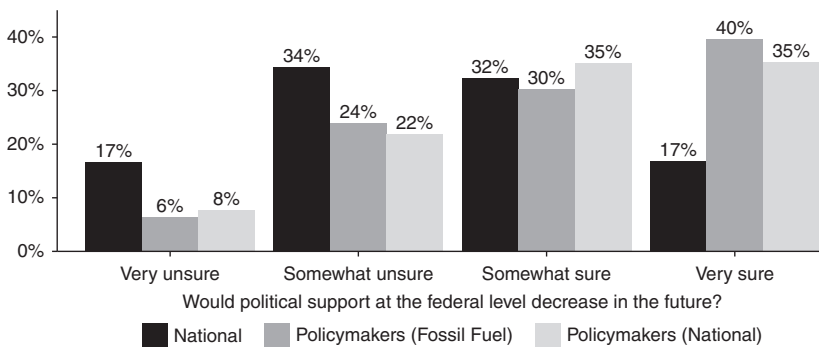


FIGURE 3.8 National public and local policymaker expectations that community business leaders would raise concerns about the credibility of a federal government investment to create renewable energy jobs in the area.

<sup>34</sup> Fielded August 2022 with CAPS/Harris ( $N = 3,108$ ).

The national public is more unsure, which likely reflects a lack of knowledge of business leader concerns, whereas elected officials serve as intermediaries.

### Effects of Uncertainty on Firm Investment

Companies and investors with access to substantial resources play a crucial role in the energy transition. They can leverage their capital to foster the development of new clean energy technologies and usher them through the innovation “valley of death” to broad deployment. However, political and economic uncertainty can hold back this vast potential. This uncertainty has real consequences for firm investment decisions, as economists and other scholars document (e.g., Bernanke, 1983; Dixit and Pindyck, 1994; Helm, Hepburn, and Mash, 2003; Pindyck, 1988).<sup>35</sup>

Renewable energy is no stranger to these challenges, especially in its earlier years. One theoretical model shows how companies would have an incentive to make investments in clean energy technologies if they believed there would be a market for their inventions. However, firms fear their innovation will be displaced because the government will encourage the development of newer, cheaper technologies. The result is that companies do not invest in the first place (e.g., Laffont and Tirole, 1996). Governments can only solve this problem with a credible commitment that the firm would be able to benefit from its technological investments.<sup>36</sup>

These concerns are not hypothetical. A range of studies find that political uncertainty has wide-ranging effects. For example, Sendstad et al. (2022) analyzed the impact of green subsidies in Europe by comparing investment levels in countries where a policy change occurred unexpectedly after it was enacted, to those where there were no sudden changes. They estimate that a retroactive subsidy change decreased solar and wind energy investments by 45 and 16 percent, respectively. They conclude that credible policy commitments are essential to encourage private firms to make green investments.<sup>37</sup> While some

<sup>35</sup> To manage uncertainty and the effects of policy, firms regularly lobby even after the passage of legislation to shape its implementation (e.g., Stokes, 2020; You, 2017).

<sup>36</sup> Another theoretical paper by Blyth et al. (2007) investigates a model where there is uncertainty about future carbon prices due to policy changes, which creates a risk premium for green investments. Dalby et al. (2018) and others consider models where subsidies might change, highlighting the impacts of policy uncertainty on investment decisions.

<sup>37</sup> Likewise, García-Álvarez, Cabeza-García, and Soares (2018, pp. 872–873) study policy efforts to promote solar energy in the European Union, and conclude that durable and stable policy is “the most relevant issue for policymakers...” This echoes the types of

reformers hope that cost reductions in renewable energy will shield the industry from the effects of uncertainty, it may be too soon to tell. There is initial evidence from Europe that when policymakers remove subsidies for solar once it becomes cost competitive, investment in the technology falls, which suggests that cost competitiveness alone is not yet sufficient (Karneyeva and Wüstenhagen, 2017).

Uncertainty also impacts the pace of the fossil fuel phase-out. One study of the closure of coal-fired power plants used a research design that took advantage of differences in the geographic roll-out of air pollution regulations and found that coal power plants in states where legal challenges injected uncertainty were less likely to receive investments in capital-intensive scrubber technologies (Dorsey, 2019). Fabrizio (2013) documents similar underinvestment when there are legal challenges to state climate policies, such as mandates that a certain share of electricity come from renewable generation. These findings echo the insight from the economist Oliver Williamson (1991), who argues firms will underinvest in large assets that are hard to repurpose if they fear the value of the investment in the future will decrease.<sup>38</sup>

The effects of uncertainty also influence which companies financial markets bet on. One study shows how venture capital funds are less likely to invest in clean-tech start-ups when there are high levels of environmental policy uncertainty (Noailly, Nowzohour, and Heuvel, 2022). Other researchers have fielded surveys of individuals at large energy sector firms and venture capital funds and find that economic uncertainty and regulatory exposure influence investment decisions (Botta, 2019; Chassot, Hampl, and Wüstenhagen, 2014). In Germany, oscillation in the ambition of the *energiewende* undermined perceptions of policy credibility among renewable energy manufacturers (Rogge and Dütschke, 2018). These findings underscore the need for predictable policies that minimize risk from commitment challenges that arise as technology and regulatory environments evolve.

The political sources of this uncertainty are not lost on the business community. For example, the Roosevelt Project team developing a transition plan for the Gulf Coast described how “[u]ncertainty about policy is a major barrier to business investment. We think proposals that can

“salami tactics” discussed in the bargaining literature where slow changes in power do not lead to bargaining breakdown (Fearon, 1996; Schelling, 1966). For more on the impact of policy uncertainty, see Liang et al. (2022) and Walls, Rusco, and Ludwigson (2007).

<sup>38</sup> See also, Ulph and Ulph (2013).

*outlive one or two election cycles and have bipartisan support* are the most likely to provide the sort of certainty investors would want to see” (emphasis added, Beckfield et al., 2022, p. 70).

In Chapter 5, we report findings from interviews with officials at electric utilities, oil majors, and renewable energy developers who emphasized the impact of uncertainty on their planning for the energy transition. There was constant concern about the pendulum swings of policy and how this impacts transition plans. One senior official at an electric power company who works in federal and state policy-making said, “I’ve been in this industry a long time, and federal funding [for clean energy transitions] comes and goes.”<sup>39</sup> As a consequence, firms develop playbooks to hedge against political risk. “The swings are becoming more dramatic and more frequent. We have to have strategies that mitigate and hedge those political risks,” another electric power company official told us.<sup>40</sup> This uncertainty can forestall investments and lead to an otherwise higher share of fossil fuels in a company’s portfolio.

## CONCLUSION

This chapter shows how credibility concerns are salient in the minds of the public, local policymakers, and business leaders. Individuals from all walks of life, including those in communities on the front lines of the energy transition, think that the government might not keep its promises to support workers and localities in transition or investments in new industries. While some are more skeptical of the government than others, especially individuals who believe the government has broken its promises before, what is most striking is the uniformity of reversibility concerns.

These beliefs are consequential for economic transitions. People do not uncritically accept the government’s promises of compensation and investments. Companies also slow or avoid investments in uncertain technologies when there is economic and political volatility. Low government trustworthiness exacerbates these credibility challenges (e.g., Levi, 1998).

Economic transitions also take place against a backdrop where the American public, as well as others around the world, struggles to understand how they benefit from government programs. Suzanne Mettler (2011) calls this phenomenon the “submerged state,” where

<sup>39</sup> Interview, August 31, 2022.

<sup>40</sup> Interview, October 11, 2022.



the government's role is invisible to citizens. This opacity could be the consequence of the complexity of modern governance but also the product of deliberate efforts by opponents of particular programs. If the public cannot understand, let alone see, the benefits from a government policy, that heightens the challenge of building societal consensus and earning the trust of impacted communities and could even contribute to the view that government is broken and cannot solve problems (e.g., Hochschild, 2016).

For example, the submerged state problem has plagued political strategies to price carbon emissions. Advocates of carbon taxes have hoped that the revenue raised could be distributed back to voters and serve as a carrot that wins support for the policy. Yet in Canada and Switzerland, countries with carbon taxes that provide rebates to the general public, large swaths of citizens are unaware of the programs (Mildenberger et al., 2022). The same study found that efforts to improve citizen information had a limited impact on public support for carbon pricing.

Even when the benefits from a policy are visible, mistrust can impede broader public support. One study in India argued that tepid support for citizen rebates from a carbon tax is likely related to low trust in government, especially in marginalized communities (Gaikwad, Genovese, and Tingley, 2022b). In Washington state's 2016 carbon tax referendum (Washington Initiative 732), a common criticism was that interest groups would gain access to the revenue raised by the tax. Low trust can influence the public's perception that they would benefit from political reform.

Social identity also plays a role. Communities that extract fossil fuels have formed distinct attachments with the industry that may amplify mistrust of government promises. Take coal mining in Appalachia, where shared immigrant ancestry, unionization, and the social status afforded by the jobs have united workers and their communities around a common identity and social structure (Bell, 2009; Bell and Braun, 2010; Douglas and Walker, 2017). The coal industry has taken advantage of this collective identity to frame environmental protections as an attack on their way of life by outsiders (Bell and York, 2010; Lewin, 2019). Some residents feel that the rest of the country subordinates Appalachia, which has led to a sense of abandonment and devaluation by the federal government (Lewin, 2019). These conditions contribute to a mosaic of mistrust that is also visible in the growing urban-rural divide in the United States (Cramer, 2016).

Rather than a cause for despair, our results show that people and companies are clear-eyed about politics, which suggests that they should

respond to strategically designed policy (which we test in Chapter 5). Not only must reformers solve credibility challenges, but they must also address problems of local economic opportunity. The public must believe the investments on offer represent viable opportunities that support good livelihoods. The next chapter turns to this question and reports results from new surveys that measure economic opportunity beliefs across various industries, especially green jobs that are essential for the energy transition.