

UNHEALTHY DEMOCRACY: HOW PARTISAN POLITICS IS KILLING RURAL AMERICA

By

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Dissertation

Submitted to the Faculty of the
Graduate School of Vanderbilt University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in

Political Science

August 31, 2021

Nashville, Tennessee

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To Mom and Dad.

ACKNOWLEDGMENTS

This dissertation would not be possible without the countless contributions of many people. My first thanks go to my co-chairs, Larry Bartels and Josh Clinton. Each of these men deserve credit that I will never be able to fully describe. I decided I wanted to be a political scientist when I read Larry's *Unequal Democracy*. Larry's kindness and generosity are only surpassed by his brilliance. Josh rescued me at one of the lowest points of my life. He's provided constant feedback, friendship, and support through the toughest professional and personal times. Josh taught me how to think with data and how to focus on what my research was "really about." I have been incredibly fortunate to have been mentored by two of the most genuine and leading minds in American politics.

Beyond my chairs, this dissertation benefited most from the guidance of Allison Anoll and Kathy Cramer. Every facet of my dissertation from the literature review to my resulting job talk was improved directly by Allison's advice. I only regret not having to be able to spend more time learning from her. Kathy and her book, *The Politics of Resentment*, are as responsible for the inspiration of this dissertation as every day I spent growing up in rural, Kentucky. Her book spoke to me as an early grad student like no other scholarship has since. Having the opportunity to have her serve as my outside committee member has been an amazing gift.

I have also benefited greatly from the advice and friendship of many other current and former Vanderbilt faculty members. Dave Lewis has provided constant friendship and support and I will always fondly remember Lewis Lab. Eunji Kim, though late to my graduate school years, has provided encouragement and advice. I will also always be thankful to Amanda Clayton for exposing me to the comparative politics literature that ultimately formed my thinking on this project and the opportunity to do field interviews with rural and urban Republicans. Cindy Kam, whether she knows it or not, has attended every conference practice talk I've given in the department. Her questions and comments have always been the hardest and have helped push my projects forward the most. Bruce Oppenheimer has been my lunch buddy, trivia host, and friend for years now. I will miss the stories and factoids. Jon Meacham has provided me with scholarly opportunities that I will never forget or be able to repay. Hye Young You was the first person at Vanderbilt to believe in and work with me. I would have never had the confidence to write this dissertation without her.

Several professors mentored and guided me prior to Vanderbilt. David Cohen, John Green, Daniel Coffey, and Cyndra Cole at the University of Akron taught me how think like a political scientist for the first time and helped me to believe in myself enough to apply to PhD programs. Winfield Rose at Murray State University gave life to my teaching and academic passions.

My times in CSDI at Vanderbilt have made graduate school enjoyable. Shannon Meldon-Corney has been my constant advocate and support system. I don't know how I am supposed to accomplish much of anything without her. Mark Richardson, Scott Limbocker, Sheahan Virgin (not Sheahan's plants), Darrian Stacy, James Matherus, and Mary Catherine Sullivan were wonderful friends and officemates. Sheahan became my roommate and one of my dearest friends during our times in CSDI and has been a constant source of support and classical music knowledge. Dan Alexander, Trish Kirkland, Jonathan Klingler, Shawn Patterson, Nick Eubank, and Adriene Fresh joined Vanderbilt as CSDI post-docs and each improved my scholarship. Dan, in particular, has always pushed me to be the best I can be and think critically about my research.

My Nashville trivia teams and close friends around the Vanderbilt program have made my time outside of work so much fun. Nicole Audette, Dave Connor, Spencer Hall, Adam Wolsky, Maggie Deichert, Drew Engelhardt, Marc Trussler, Kaitlen Cassell, Claire Q. Evans, Bryce Williams-Tuggle, Nick Bednar, Lauren Chojnacki, Sara Kirshbaum, Meredith McLain, Rho Townsley, and Mellissa Meisels have made even the toughest days of graduate school feel worth it. Mellissa, in particular, has helped me so many times.

I would not have made it to Vanderbilt without the support of three special friends from my time in Akron, OH. Jelena, Stew, and Ian believed in me before I did. Losing Ian in the middle of my time at Vanderbilt was incredibly painful; Ian more than any other person I have ever known believed in the power of politics and decent people to rid the world of injustice and pain. My college friends from Murray State have also been the most amazing people and have been so patient with me as I worked on this project. Playing with Amanda and The Bob Ukerz, spreading music and happiness during dark times, kept my focus on what matters most in life.

Finally, and most importantly, my family deserves the most gratitude of all. My mom and dad have sacrificed everything to make my dreams possible. Financially and emotionally, my parents have given their

all for me. My mom picked up every phone call between 8:00am and. . . well. . . 8:00am to console me during my struggles. My dad gave me my skeptical mind for the world of politics and a world of happy times away from work. I cannot wait for more days of fishing and live music now that writing this is over. My step-dad and his children have provided so much love and many happy times. My sister, her husband Matt, and her children are the happiest parts of my life; Finley and Elly are my joy.

I also owe more than describable to the many loved ones that I've lost during this experience. Graduate school, though wonderful professionally for me, was a time of constant turmoil and loss in my personal life. To all of my loved ones gone too soon, I miss and thank you immeasurably. A special posthumous thank you to my grandfather, Roger Shepherd, who passed away as I was finishing my final chapters. Watching the morning news with my papaw as a child was how this journey began in the first place.

- Michael Shepherd, Franklin, KY

TABLE OF CONTENTS

	Page
LIST OF TABLES	viii
LIST OF FIGURES	x
1 Introduction	1
1.1 The Puzzle	1
1.2 Previous Literature	2
1.3 Contribution	3
1.4 Overview of Chapters	5
2 Under the Elephant: Rural Support for Government Health Insurance, 1960-2018	7
2.1 Why Rural White People Do Not Support Government Health Care	9
2.2 Partisanship, Racial Attitudes, and Rural Whites' Health Care Attitudes, 1960-2000	12
2.3 Partisanship, Racial Attitudes, and Rural Whites' Health Care Attitudes, 2012-2018	16
2.4 Blame it on the Pained? Health Care Attitudes of Policy-Affected Rural Whites	19
2.5 Discussion and Conclusion	27
3 Down with the Sickness? Health Experiences, Rural Resentment, and Support for Government Health Insurance	30
3.1 Blind or Resentful? How Bad Experiences Undermine Support for Government	32
3.2 Less, Not More: Rural Reactions to Poor Local Health	35
3.3 Rural Resentment and Support for Health Care Reform	39
3.3.1 Rural Resentment: Concept and Measure	39
3.4 Rural Resentment, Health Experiences, and Health Care Attitudes	41
3.4.1 Are the Rural Poor Also Resentful?	47
3.5 Discussion and Conclusion	49
4 The Politics of Pain: Medicaid Expansion, the ACA, and the Opioid Epidemic	51
4.1 Policy Feedback, Policy Effects, and Federalism	54
4.1.1 The ACA, the Opioid Epidemic, and the Politics of Pain	57
4.2 Data and Research Design	62
4.2.1 Geographic Discontinuity Design and Medicaid Expansion Borders	64
4.3 Medicaid Expansion, the Opioid Epidemic, and Voting Behavior	67
4.4 Conclusion	71
5 Dying for the Donald? The Politics of the Rural Hospital Crisis	74
5.1 The Politics of the Rural Hospital Crisis	76
5.2 How Citizens Respond in a Federalist System	80
5.3 Data and Method	82
5.3.1 Identification Strategy and Observational Analyses	86
5.4 Presidential Voting in the Rural Hospital Crisis	87
5.5 Gubernatorial Election Analyses	90
5.6 Discussion of Mechanisms	92
5.7 Conclusion	95

References	97
6 Chapter 2 Appendix	105
6.1 Data Sources and Descriptive Statistics	105
6.2 CCES Analyses	107
7 Chapter 3 Appendix	112
7.1 Data Sources and Descriptive Statistics	112
7.2 Rural Resentment Index	113
7.3 ANES Analyses	118
7.4 YouGov Analyses	120
7.5 CCES Analyses	123
8 Chapter 4 Appendix	129
8.1 Descriptive Statistics	129
8.2 Research Design Assumption Tests	135
8.2.1 Medicaid or Opioid Sorting?	138
8.3 Voter Study Group and Opioid Severity	140
8.4 Impact of Medicaid Expansion on Opioids	141
8.5 Medicaid Expansion Placebo Test	143
8.6 Main Election Results	144
8.7 Election Robustness Tests	146
8.8 Individual Election Results	150
9 Chapter 5 Appendix	152
9.1 Data Sources and Descriptive Statistics	152
9.2 Mechanisms Analyses	157
9.3 Presidential Results	159
9.3.1 County-level Presidential Results	159
9.4 Gubernatorial Results	162

LIST OF TABLES

Table	Page	
2.1	Partisanship, Racial Resentment, and Support for Government Health Insurance (CCES)	19
3.1	Local Health Conditions and Rural Support for Government Insurance	36
3.2	Rural Resentment Battery	41
3.3	Rural Resentment and Support for Government Health Insurance	46
3.4	Rural Resentment and Health Care Support Across the Party Divide	47
3.5	Rural Resentment Across the Income Divide	48
4.1	Effects of Opioid Epidemic and Medicaid Expansion on Voting Behavior	73
5.1	Comparison of Treatment, Matched-Control, and All-Control Counties	84
5.2	County Level Treatment Effect Estimates	87
5.3	Presidential Voting Regression Results (by year)	89
5.4	Individual Level Gubernatorial Election Results	91
6.1	Descriptive Statistics for the CCES Rural White Sample (2018)	106
6.2	Partisanship and Support for Government Health Insurance	107
6.3	Partisanship, Racial Resentment, and Support for Government Health Insurance	107
6.4	Rural White Support for the ACA, CCES (2012)	108
6.5	Rural White Support for the ACA, CCES (2014)	108
6.6	Rural White Support for the ACA, CCES (2016)	109
6.7	Rural White Support for the ACA, CCES (2018)	109
6.8	Government Insurance and Partisan Influences on Rural White Health Care Attitudes	110
6.9	Racial Attitudes, Partisanship, Personal Benefits, and Support for the ACA (CCES)	111
7.1	Descriptive Statistics for the CCES Rural White Sample (2018)	112
7.2	Rural Resentment Battery	113
7.3	Local Health Conditions and Rural Support for Government Insurance (1972)	118
7.4	Local Health Conditions and Rural Support for Government Insurance (1992)	119
7.5	Rural Resentment and Support for Government Health Insurance	120
7.6	Rural Resentment and Health Care Support Across the Party Divide	121
7.7	Rural Resentment Across the Income Divide	122
7.8	Rural Symbolic Support for Government Health Care	123
7.9	Rural Symbolic Attachments and Support for Government Health Care	124
7.10	Opioid Conditions and Rural Support for Government Health Care	125
7.11	Years of Potential Life Lost and Rural Support for Government Health Care	126
7.12	Percent of Population in Poor Health and Rural Support for Government Health Care	127
7.13	Obesity Rates and Rural Support for Government Health Care	128
8.1	Expansion Status of each Status as of 2015	129
8.2	Descriptive Statistics for the GDD Border Sample	129
8.3	Descriptive Statistics for GOP Expansion Border Sample	129
8.4	Implied Substantive Relationship between Prescriptions and Deaths	134
8.5	Balance Between Expansion and Non-Expansion Counties	138
8.6	Impact of Medicaid Expansion on Migration	139
8.7	Personal Knowledge and Community Opioid Severity (VSG)	140
8.8	GDD: Effect of Medicaid Expansion on Opioid Prescriptions	141
8.9	Non-Parametric RD Estimates of Effect of Medicaid Expansion on Opioid Usage	141
8.10	Placebo Test: Pre-treatment Changes in Opioid Rates in Expansion States?	143
8.11	Effects of Opioid Epidemic and Medicaid Expansion on Voting Behavior	144
8.12	GDD Dropping Polynomial Terms	145

8.13	Effects of Opioid Epidemic Controlling for Other Health Effects	146
8.14	Effects of Opioid Epidemic Controlling for Financial Effects of ACA	147
8.15	Effects of Opioids Dropping Coal States	147
8.16	GDD Results Dropping Bottom and Top 10% of Opioid Observations	148
8.17	Heterogenous Effects of Medicaid and Opioid Effects, Full and GOP Samples	149
8.18	Individual-Level Regression Results (Voter Study Group)	150
9.1	States with Hospital Closures (by year)	152
9.2	Demographics of Treated and Untreated Units	152
9.3	Comparison of Treated and Untreated Respondents	156
9.4	Mechanism Association Results	157
9.5	Mechanism Results: Economic Retrospection and Health Care Attitudes	158
9.6	Individual Level Presidential Election Results	159
9.7	County Level Treatment Effect Estimates	161
9.8	Individual Level Gubernatorial Election Results	162

LIST OF FIGURES

Figure	Page
1.1 Obesity Rates and Partisan Voting	2
1.2 Lives Lost and Partisan Voting	2
1.3 Population and Partisanship (1980)	3
1.4 Population and Partisanship (2016)	3
2.1 Cheap Government Insurance	13
2.2 Government Insurance Scale	13
2.3 Trends in Partisan Affiliation Among Rural Whites, 1960-2000 (ANES)	14
2.4 ANES, (1960-1968)	15
2.5 ANES, (1972-2000)	15
2.6 Racial Attitudes and Rural Support for Government Health Insurance, 1972-2000 (ANES)	16
2.7 Urban/Rural ACA Support	17
2.8 Rural Partisan ACA Support	17
2.9 Racial Resentment and ACA Support (CCES)	18
2.10 ACA Support (2012)	20
2.11 ACA Support (2014)	20
2.12 ACA Support (2016)	21
2.13 ACA Support (2018)	21
2.14 ACA Support, Uninsured	22
2.15 ACA Support, Gov't Insured	22
2.16 Racial Resentment and ACA Support	23
2.17 Partisan Effects of Government Health Insurance on Support for the ACA	25
2.18 Effects Racial Resentment and Government Health Insurance on Support for the ACA	26
3.1 Local Health Conditions and Rural Support for the ACA	38
3.2 Rural Resentment Index	42
3.3 Rural Resentment and Education	43
3.4 Rural Resentment and Income	43
3.5 Rural Resentment and GOP Affect	44
3.6 Rural and Racial Resentment	44
3.7 Rural Resentment and "Religiosity"	44
3.8 Years of Life Lost	45
3.9 Opioid Prescription Rate	45
3.10 Obesity Rate	45
3.11 Rural Resentment and ACA Support	46
3.12 Rural and M4A Support	46
4.1 Medicaid Expansion Status (2015)	59
4.2 Border Sample Status (2015)	59
4.3 CDC Trends in Average Opioid Usage	60
4.4 Δ Opioid Usage	60
4.5 NYT Mentions of "Opioid"	61
4.6 Trump Tweets	61
4.7 County Level Opioid Prescription Rate (2016)	64
4.8 Opioid Prescription Rate (2010)	65
4.9 Democratic Vote (2008)	65
4.10 Impact of a Two-Standard Deviation Change in Variable (Full and GOP Samples)	70
5.1 US Hospital Closures, 2005-2020	77
5.2 US Hospital Closures (by state), 2010-2018	78

5.3	GOP and Non-Medicaid Expansion State Rural Hospital Closures	79
5.4	Study Sample of Closure Affected and Matched Peer Communities	85
5.5	Marginal Effect of Hospital Closure on Support for Trump by Partisanship	90
5.6	Presidential Approval Trends by Hospital Closure Status and Partisanship	93
5.7	Marginal Effect of Hospital Closure on Economic Evaluations and Support for the ACA	94
7.1	Plausible Number of Factors for Rural Resentment Battery	114
7.2	Dimension 1: Rural Cultural Pride	115
7.3	Dimension 2: Rural Resentment	115
7.4	Rural Resentment Additive Index	115
7.5	Rural Resentment and GOP Affect	116
7.6	Rural and Racial Resentment	116
7.7	Rural Resentment and Religiosity	116
7.8	Rural Resentment and Education	116
7.9	Rural Resentment and Income	116
7.10	Rural Resentment and ACA Support	117
7.11	Rural and M4A Support	117
8.1	Prescription Rates (2006-2016)	130
8.2	log Prescription Rates (2006-2016)	130
8.3	CDC and Wapo Opioid Data	131
8.4	CDC and Death Data	131
8.5	County Level Opioid Prescription Rate (2012)	132
8.6	County Level WaPo Pills Rate (2012)	133
8.7	Drug Related Deaths (2014)	134
8.8	Evidence of Pre-Treatment Discontinuity?	135
8.9	Evidence of Pre-Treatment Discontinuity?	136
8.10	Distance to Border as Sharp Discontinuity	136
8.11	Distribution of Counties across Running Variable	137
8.12	Pre-treatment Parallel Trends in Democratic Vote Share	138
9.1	Balance on Covariates via Matching	153
9.2	Balance on Covariates via Matching	154
9.3	Balance on Covariates via Matching	155
9.4	Treatment and Control Parallel Trends	160

CHAPTER 1

Introduction

The political divergence of urban and rural America is one of the most important facets of American politics. As such, journalists and academics have provided considerable attention to this growing divide (Frank, 2004; Bishop, 2009; Hochschild, 2018; Metzl, 2019; Nall, 2018; Rodden, 2019). These accounts have contributed to heightened public concern over the dismal economic and health care realities facing rural communities and have directed the public's focus on how government policies have failed to meet the needs of rural people. Along these lines, a 2018 Pew Research report found that majorities of rural, suburban, and urban people (71% among rural residents, 61% among suburban residents, and 57% among urban residents) believed that rural areas received less than their fair share from government (Parker et al., 2018).¹ While these scholarly works have clearly helped raise social sympathy toward rural communities, many of them have also contained a palatable and often judgmental bewilderment towards why these forgotten rural people would turn away from government and the Democratic Party—both of which would presumably be likely to help alleviate their via public policy initiatives. Sociologist Arlie Russell Hochschild (2018) refers to this curious rural pattern of choosing the Republican Party and being anti-government despite facing grave personal and communal health and economic circumstances as “The Great Paradox.” This dissertation explores this “Great Paradox” within the policy area of health care.

1.1 The Puzzle

Rural communities are less healthy, have lower insurance rates, and face more restricted access to medical care than urban communities (Hochschild, 2018). Moreover, the large health disparities the plague racial and ethnic minorities as well as other underserved groups tend to be most severe in rural areas (Smith, 2016; Metzl, 2019; Case and Deaton, 2021). Despite this, rural people, especially rural white people, have become increasingly supportive of the Republican Party, even as the elites in the Republican Party have become stridently anti-government and less representative of the health and economic interests of rural areas (Hacker and Pierson, 2020; Schaffner et al., 2020).

These trends have caused one of the important stylized facts that undergirds the great paradox: the least healthy communities are now the most supportive of the anti-government Republican Party. For example, consider Figures 1.1 and 1.2, which plot the bivariate relationships between county-level obesity rates and

¹Far fewer respondents in each residential category believe the same thing about cities, suggesting people on average believe rural people places are treated unfairly by government.

years of potential lives lost on support for the Democratic Party in the 2016 presidential election.² Figure 1.1 shows that communities with higher obesity rates, which are overwhelming rural, tend to be less supportive of the Democratic Party. Similarly, Figure 1.2 shows that (rural) communities that experience more premature deaths, measured here as the estimated number of years of potential life lost due to health conditions, are also less likely to support Democrats. In each figure, negative health experiences are associated with heightened Republicanism. Indeed, across many other health indicators not reported here, the least healthy communities—most of which are rural—tend to be more Republican on average.

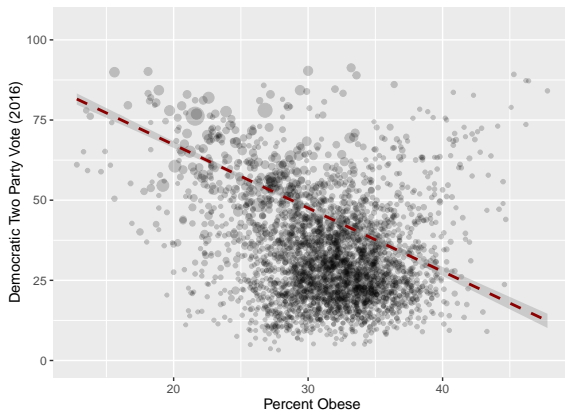


Figure 1.1: Obesity Rates and Partisan Voting

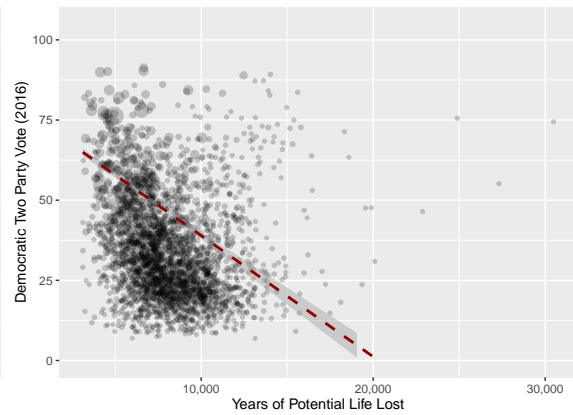


Figure 1.2: Lives Lost and Partisan Voting

1.2 Previous Literature

Political science theories, in combination with popular discourse, offer several explanations for why it seems that sick rural people “vote against their interests” by supporting the Republican Party. Somewhat famously, Thomas Frank (2004) argued that patterns like this have emerged because rural America was blinded by social issues, in essence claiming that rural Americans had been dooped into believing Christian religious issues like abortion or same sex marriage were more important than economic issues, like government spending or health care policy. However, such views were fairly easily dismissed with the dearth of evidence supporting social issue voting or anti-economic voting, at least up to the 2004 election (Bartels, 2006, 2008). With the 2016 presidential election and rural America’s embrace of Donald Trump, many similar arguments of rural people being “blinded” by these religious-stoking social issues were re-offered to explain why rural people did not want government to help their health problems (Hochschild, 2018).

Other work suggests that rural white people’s attitudes about race and social groups undermine their support for government assistance and the Democratic Party (e.g. Kinder and Sanders (1996); Carmines and Stimson (1989); Gilens (1999); Tesler (2016); Jardina (2019)). Racial attitudes shape individual-level de-

²The size of points varies based on the population of the county, darker areas represent more densely-clustered data. The regression line weights observations based on their population.

mands for a variety of social welfare programs and support for health care reform specifically (Schaffner et al., 2018; Mutz, 2018; Banks, 2014; Tesler, 2012; Winter, 2008; Gilens, 1999). Michael Tesler (2012), for example, demonstrates that President Obama’s association with the Affordable Care Act has connected whites’ health care and racial attitudes over the last decade. More forcefully, Jonathan Metzl (2019) argues that racial considerations cause rural whites to be directly “dying of whiteness,” where white, rural American’s racial attitudes not only prevent them supporting government health care, but ultimately cause health decisions that undermine personal health.

1.3 Contribution

In this dissertation, I provide two primary additions and contributions to this debate. First, I argue that explanations that rely solely on rural social-issue blindness or racial attitudes are incomplete in explaining the patterns of rural health care attitudes and political behavior we observe. Instead, I contend that partisanship, especially Republicanism, is the key driver in undermining rural support for government health care. Over the past several decades, rural America has become generally more supportive of the Republican Party.³ Figure 1.3 displays the bivariate relationship between a county’s population (one common measure of rurality) and the Democratic Party’s share of the major party vote in 1980—the size of points varies based on the population of the county.⁴ Figure 1.3 demonstrates that the line is essentially flat with points scattered randomly about, indicating essentially no relationship between rural-ness and partisan support in 1980. However, as Figure 1.4 displays, by 2016 there was a strong positive relationship between how populated an area was and its support of the Democratic Party, implying considerable shifts in rural support for the Republican Party.

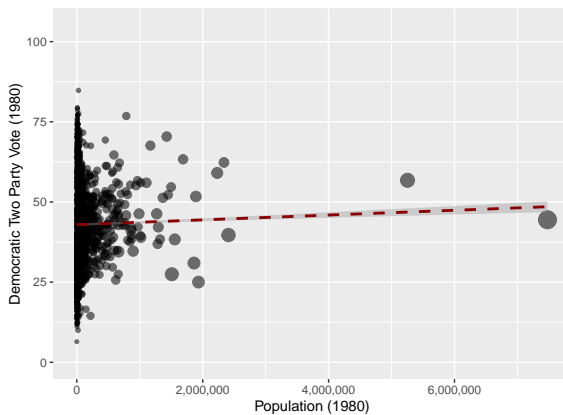


Figure 1.3: Population and Partisanship (1980)

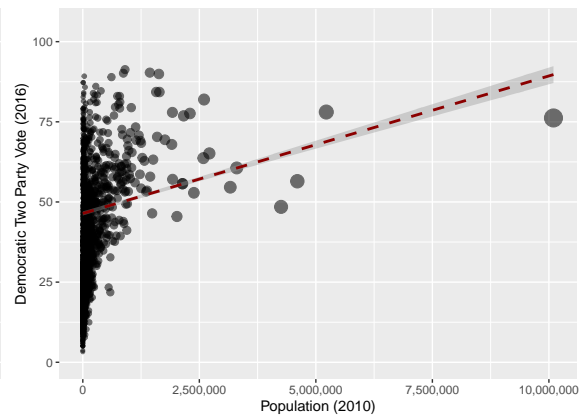


Figure 1.4: Population and Partisanship (2016)

³Most of rural America was already Republican, as the South drives most of the growth (Bartels, 2006). However, there are more recent converts to the party, who have switched based on the increasing association between rural cultural images of the Republican Party (Achen and Bartels, 2016; Cramer, 2016; Ahler and Sood, 2018; Jacobs and Munis, 2019; Deichert, 2019).

⁴I use the US decennial Census estimates for the 1980 plot and the American Community Survey, US Census 2010 population counts for the 2016 plot. The regression lines weight counties by population.

As a result, more rural people simply rely on Republican elites for cues on difficult political issues like health care. Accordingly, as Republican elites have taken more stridently anti-government positions (Lerman, 2019; Hacker and Pierson, 2020), rural white Republicans have followed and become less supportive of government health insurance (e.g Lenz (2013))—despite the worsening health conditions. Indeed, the COVID-19 pandemic has only further revealed the importance of partisanship in health care as many rural white Republicans opted out of life-saving social-distancing, mask-wearing, and vaccination practices that ultimately have saved the lives of many of their opposition-partisan peers (Kim et al., 2020; Clinton et al., 2021; DeMora et al., 2021). Based on these stark party differences and evidence from the COVID-19 pandemic, I argue that the vast majority of rural people simply follow their party lead to their own peril or promise.

The second major contribution of this dissertation is to challenge Hochschild’s (2018) and others’ premise that rural Americans are simply blind to their own needs, privileging social issues over local concerns. This view is far too simplistic and ignores how rural people respond to their local conditions in more nuanced ways. While the forces of partisanship and racial attitudes discussed above mute the influence of local health conditions and lived experiences on rural political behavior, rural white people do seem to respond to their local health conditions. However, they do so in ways that reflect either positive or negative experiences with health care and with rural considerations at the forefront of their minds. Drawing on Cramer’s (2016) pathbreaking study of Wisconsin, I argue that rural white people respond to their negative experiences by developing resentful attitudes toward government and cities. These resentful attitudes, in turn, undermine rural white support for government health insurance for rural white people of varying partisan loyalties. According to this argument, the relationships between observed in Figures 1.1 and 1.2 would actually be reflective of reasonable grievances against government, even if misplaced.

The remainder of this dissertation dives deeper into these contributions in two parts. First, I focus on the major explanatory factors for why rural white people are less supportive of government health insurance than urban white people. I pay special attention to how rural people’s social attachments and lived experiences correlate with their levels of support for government health insurance. Second, I more rigorously examine how positive and negative health policy experiences shape rural white voting behavior within the American federalist electoral system. In conjunction, these chapters show that rural people are not unaware of or blind to their health care needs. Instead, rural people tend to blame the federal government, and especially the incumbent president, for their negative health experiences. This blame attribution pattern is clearly self-undermining for improving rural health care via government solutions, as often times the less responsible political actors (i.e., federal Democrats) are blamed for poor local health conditions caused by other actors. Moreover, by wanting less and not more from government as things get worse, rural people are contributing to a vicious cycle where rural Republican elites benefit electorally from things worsening in their own rural

communities.

On a more positive note, these chapters demonstrate that rural people *are* retrospective and reactive. When rural people experience policy benefits (i.e. receive government health insurance, experience more favorable health conditions), they tend to become more supportive of government health insurance and the Democratic Party. As a result, public policy remedies and using the government to improve rural health care are potential paths forward for building rural support for government. So, while the vicious rural health care cycle is relentless, government policy seems to slow its spin.

1.4 Overview of Chapters

The first chapter of this dissertation, “Under the Elephant: Rural Support for Government Health Insurance, 1960-2018,” explores the historical trajectory of rural white opinion towards government health insurance from 1960 to the present. I show that rural whites tend to be more supportive of government health insurance than conventional wisdom suggests—though less supportive than urban whites. However, racial attitudes and especially Republican partisanship increasingly undermine rural whites’ support for government health care. Republican partisanship has consistently predicted lower support for government health insurance, since at least the early 1960s. Rural white Republicans, even personally receiving government health insurance, are highly unsupportive of government health care. I also show that racial attitudes, from time-to-time, have been important for understanding rural white health care attitudes. From the late 1960s through the early 1980s and again from 2010 forward, rural white people who held more racist attitudes were substantially less likely to support government health insurance. However, unlike Republican partisanship, I show that the negative effects of racial attitudes are demonstrably reversed by policy benefits. Today, even the most racially resentful rural white people are highly supportive of government insurance if they are personally receiving it.

The second chapter, “Down with the Sickness? Health Experiences, Rural Resentment, and Rural Support for Government Health Insurance,” examines how local, rural health experiences shape rural health care demands from and support for government. Using data on roughly 100,000 rural white respondents and multiple measures of rural public health, I show that rural white people, on average, respond to more dismal health conditions by wanting less and not more government. Drawing on Cramer (2016), I develop an original rural resentment survey battery to assess the degree to which rural white people develop resentful attitudes in response to their health conditions and whether these attitudes, in turn, provide the prism through which rural people translate their lived experiences into political action. This chapter demonstrates that the most rurally resentful white people tend to live in the least healthy communities. Moreover, these resentful rural attitudes exert a strong, independent influence on support for government health insurance across the partisan divide. These results suggest that poor health care environments and negative health experiences—among a host of

other negative conditions—lead rural white people to form resentful attitudes toward the government, blame the government for their experiences, and ultimately reject government assistance to improve their lives.

In the third chapter, “The Politics of Pain: Medicaid Expansion, the ACA, and the Opioid Epidemic,” I turn to the electoral effects of health experiences and health policy. I argue that the federalist structure of the American representational system complicates how health conditions are translated into voting behavior and ultimately which politicians are blamed for health care conditions. Building on Sances (2017), Rogers (2017), and Lee (2016), who all argue that the president is held accountable for the policy (in)actions of other levels and branches of government, I argue that the federalist structure of American government and the effects of the hyper-partisan loyalties displayed in Chapter 1 often similarly incentivize state-level Republican elites—who now represent most of rural America—to undermine their own constituent’s health care conditions—*specifically because it is often the opposition party’s president that will be held responsible*. I explore how these dynamics affected the trajectory and political influence of the opioid epidemic. Using data on the spread the opioid epidemic from 2006-2016, I show that the Affordable Care Act (ACA) reduced the severity of opioid usage in states that choose to expand Medicaid. In communities in expansion states that experienced reductions in opioid usage, the Democratic Party performed more strongly in the 2016 presidential election. Conversely, in non-expansion states and where opioid conditions worsened, largely due to Republican decisions not to expand Medicaid, voters shifted their support toward Donald Trump. These results imply that the Republican voters shifted toward the Republican Party due to bad health experiences, even though Republican state politicians were more responsible for these outcomes.

In the final chapter, “Dying for the Donald? The Politics of the Rural Hospital Crisis,” I probe the electoral and attitudinal effects of declining access to health care in rural America. Specifically, I explore rural responses to the unfolding rural hospital closure crisis as source of exogenous variation in access to medical care. Since 2005, nearly 200 rural hospitals have closed, leaving much of rural America without access to emergency health care. The vast majority of these closures have occurred in Republican states that chose not to expand Medicaid under the ACA. Using data on all rural hospital closures in the US from 2010 to 2018, I find that hospital closings increased rural independents’ likelihood of voting for Donald Trump in the 2016 presidential election and reduced their support for the ACA and approval President Obama. However, consistent with prior chapters, I show that neither Republicans or Democrats were electorally influenced by the hospital closures in their communities. At the state level, I find no evidence that these rural hospital closings affected gubernatorial voting (or approval) for independent, Republican, or Democratic rural voters. Building on the argument of the previous opioid, chapter, I show that state officials are often let off the hook for the roles they play in undermining rural public health.

CHAPTER 2

Under the Elephant: Rural Support for Government Health Insurance, 1960-2018

“[O]n a crusade in which one’s own material interests are suspended in favor of vague cultural grievances that are all-important and yet incapable of ever being assuaged.” - Thomas Frank (2004), p. 121.

The quote above from Thomas Frank’s *What’s the Matter with Kansas?*, highlights a common, if not banal, depiction of the political attitudes and behaviors of rural white people. In Frank’s and others’ reasoning, rural white voters’ focus on cultural issues distracts them from adopting policy positions more consistent with their “material interest.” Over the last decade, this type of logic has been extended, mostly by qualitative scholars, to attempt to better understand why rural people seem so unsupportive of government health insurance, even though many of them would assuredly personally benefit from it and despite the decreasing access to quality private health care in rural communities like theirs (Hochschild, 2018; Macy, 2018; Metzl, 2019; Case and Deaton, 2021). Specifically, these scholars argue that racism, culture war attitudes, and pure ignorance explain why rural white people, who would personally benefit from assistance, nevertheless do not support government health insurance. However, and despite the frequency and power of these narratives, little quantitative evidence exists to support these claims.

To probe this conventional wisdom, I perform a historical analyses examining the extent to which symbolic attitudes and group attachments—specifically partisanship and racial attitudes—explain rural whites’ health care attitudes from 1960 to the present.¹ To do so, I use data from roughly 30 public and private mass opinion surveys from 1960-2018, including over 100,000 rural white survey respondents. I find that these symbolic attitudes and group attachments do indeed explain the vast majority of variation in rural whites’ health care attitudes from 1960-2000. However, and despite Frank’s and others’ assertions, these relationships do not appear to be new influences on rural whites’ health care attitudes. Regardless of decade, event, or health care salience, differences between Republicans and Democrats’ are the largest among rural social groups in terms of support for government health care. Republican partisanship in particular erodes support for government health insurance, as Democrats and independents both typically and similarly prefer government health insurance. Somewhat consistent with Frank (2004), however, the role of Republican partisanship has *increased* over the last decade or so, but more modestly than typically assumed.

¹To remain consistent with this previous work, I also focus rural white people. As a result, a limitation of this work is that it only speaks to whites’ health care attitudes. Racial and ethnic minorities—as well as other underserved and marginalized communities—experience the worst health care outcomes in rural communities (e.g. Smith (2016)). These groups of people tend to respond to their negative experiences with less anger and resentment than their white peers (Phoenix, 2019) and with more resilience—adopting communal participatory norms to overcome social problems (White and Laird, 2020; Anoll, 2018).

Similarly, I find that racial attitudes are also historically key to understanding rural whites' health care attitudes (e.g. (Metzl, 2019)). Especially following the creation of the Affordable Care Act (e.g. (Tesler, 2012)), rural white affect towards black people and racial resentment were heavily predictive of rural whites' health care attitudes. However, the independent influence of racial attitudes on health care attitudes has become complicated by its relationship with partisanship, as partisanship seems to structure racial attitudes now more than the other way around (Engelhardt, 2018). Despite this, there is little doubt that racialized Republicanism and increased racial liberalism among white Democrats (e.g. Bartels (2020); Engelhardt (2019)), has created a hyper affectively-charged partisan political environment (e.g. Iyengar and Westwood (2015)) causing stronger, but fused roles for racial attitudes and partisanship in explaining rural policy attitudes (e.g. Westwood and Peterson (2020)).

Following this, I more formally test a key pillar of the existing conventional wisdom: that rural white people who would or are personally benefiting from government health insurance still reject it for the same symbolic motivations and group attachments. To do so, I examine the extent to which the previous findings hold for groups of uninsured and government-insured rural white people. I use data from the Cooperative Congressional Election Study (CCES) to examine the impact partisan and racial influences on rural whites who are among the population of potentially beneficiaries. Additionally, I test whether the positive policy feedback effects of government health insurance are moderated by these symbolic and group attachments (e.g. Clinton and Sances (2018, 2020)).

Across each of these analyses, even less well-off white rural people tend to be less supportive of government health insurance if they are a Republican or hold racially resentful attitudes. The size of these relationships mirror those observed for the less policy-affect population of rural people, suggesting that symbolic considerations matter similarly for even for the people who must actually pay the costs of symbolic action. However, most rural white people do seem to increase their support of government insurance if they are personally receiving government health insurance. Partisans of all stripes—and especially rural Democrats and independents—as well as rural whites of all racial resentment levels tend to be more supportive of government health insurance if they are directly benefiting from it. Each of these groups of rural white respondents do tend to be more supportive of government health insurance when receiving it.

However, the overall influence of “personal benefits” on rural health attitudes varies heavily from group-to-group. For example, even though rural Republicans receiving government health insurance are modestly more supportive of government health insurance programs, this increase in support is trivial as fewer than 25% of rural Republicans *actually on government health insurance* supported the ACA from 2012-2018. In stark contrast, and although racially resentful rural people were less supportive of government health insurance than the less racially resentful generally, estimated levels of support for the ACA were considerably

higher for racially resentful rural whites if they were personally benefiting from government health insurance. This massive increase in support suggests that, unlike Republican partisanship, racial attitudes become substantially less influential in undermining rural whites' health care evaluations when benefits are received.

These findings provide nuance to our understandings of why rural people seem to have health care attitudes that are against their material interests and how much of this is a new phenomenon. While Frank (2004) and others have pointed to massive rural changes in attitudes and behaviors, these results suggest that changes over time in rural behaviors, if any, have been more modest in scale. Rural white people have seemingly always been less supportive of government health insurance than urban white people. The major change has been the decreased number of rural Democrats over time and subsequent increased predictive power of Republican partisanship on health care attitudes. Moreover, while Metzl (2019), somewhat in the spirit of Frank (2004), and Tesler (2012) document more modern influences of racial attitudes on whites' health care attitudes, this chapter suggests that this may be more the norm than realized, with racial attitudes predicting support for rural whites' health care attitudes in early periods than formerly documented. However, it is these racial attitudes, and not partisan attachments, that appear to be most able to be overcome by positive policy benefits.

2.1 Why Rural White People Do Not Support Government Health Care

Popular depictions of rural white people and their political attitudes often highlight the perceived ignorance and irrational nature of their behavior. Political commentator Thomas Frank (2004) perhaps most famously proclaimed that America's rural heartland was blinded by social issues and culture—to the neglect of their own well-being. While such claims have been empirically dismissed (Bartels, 2006, 2008), this folk wisdom persists in both academia and in popular political commentary. Indeed, with the rise of President Trump, his strong rural support, and contemporaneous declines in rural health care (Case and Deaton, 2021), many political observers have returned to and extended Frank's theorizing, suggesting that rural voters ignore the unpleasant health realities facing them at home and instead focus their political energy on social grievances, political identities, and group attachments (Metzl, 2019; Sides et al., 2019; Mutz, 2018; Hochschild, 2018; Gest, 2016).

Political scientists have long known that these types of symbolic social attachments and attitudes are likely to be foundational to most people's political attitudes and behaviors (Campbell et al., 1960; Kinder and Kam, 2010; Achen and Bartels, 2016). Group attitudes and prisms are especially influential in issue areas like health care that are often difficult for voters to understand (Carmines and Stimson, 1980). As a result, the fact that group attachments matter significantly in rural whites' health care attitudes is consistent with a long line of political science literature. For example, and perhaps most strongly, partisan identities and

attachments shape policy attitudes and evaluations of the political environment across space and time in US politics (Achen and Bartels, 2016; Bartels, 2002).

Partisan considerations are likely to be especially foundational to rural health care attitudes given the complexity of health care as an issue and the complicated network of overlapping private and public institutions that make up the American health care system (Carmines and Stimson, 1980; Mettler, 2011; Morgan and Campbell, 2011). Moreover, the Republican Party's longstanding rejection of government health care and attempts to forestall health care reform under Presidents Truman, Johnson, Clinton, and Obama (e.g. Zelizer (2015); Kruse (2015); Smith (2016); Cohn (2021)) have provided strong signals to the public for decades about the two parties' positions on the issue (Zaller, 1992). These signals have been so strong that voters generally believe the Democratic Party "owns" the issue of health care (Petrocik, 1996).

Republican partisanship, in particular, is likely to have started substantially undermining rural white support for health care between 1960 and 1964 when party elites forcefully partnered with medical interest groups, like the American Medical Association (AMA), to launch national advertising campaigns against "socialized medicine." While similar campaigns were launched during President Truman's push for health care reform, the national campaign featuring Ronald Reagan during the early 1960s drew significant national attention and specifically accused Democrats of pushing socialism during the early talks of what would eventually become Medicare and Medicaid under President Lyndon Johnson (Cohn, 2021; Zelizer, 2015). From at least that point forward, partisanship is likely to be foundation to rural whites' health care attitudes. These previous theories lead to straight-forward partisan hypothesis related to support for government health insurance:

- **H1a:** *Rural Republicans will be less supportive of government health insurance than rural Democrats and independents.*
- **H1b:** *Rural Republicans will be less supportive of government health insurance over time.*

Beyond partisanship, whites' attitudes towards public policies and politics more broadly are often influenced by race and racial attitudes (e.g. Kinder and Sanders (1996); Carmines and Stimson (1989); Gilens (1999); Kinder and Kam (2010)). Racial attitudes shape individual-level demands for a variety of social welfare programs and support for health care reform specifically (Schaffner et al., 2018; Mutz, 2018; Banks, 2014; Tesler, 2012; Winter, 2008; Gilens, 1999). Racial attitudes are especially likely to explain whites' public policy attitudes when elites, the media, or the policies themselves connect racial considerations with the policy (Bobo and Kluegel, 1993; Winter, 2008; Gilens, 1999). For example, Tesler (2012) demonstrates that President Obama's association with the Affordable Care Act has connected whites' health care and racial attitudes over the last decade. Additionally, the increased importance of white identity or whiteness, due to

the perceived threat of a declining white population in the US or President Obama's national ascendancy, has likely become a new and an important, racial predictor of rural whites' modern health care attitudes (Metzl, 2019; Jardina, 2019; Abrajano and Hajnal, 2015).

Historically, and like many other American social institutions, the memory of slavery and the presence of Jim Crow affected the development of the modern American health care system (Katznelson, 2005; Smith, 2016; Acharya et al., 2018; Cohn, 2021). As such, race and racial attitudes have likely long been important to understanding whites' health care attitudes. Across the urban and rural divide, racial and ethnic minorities experience the worst health care conditions (Smith, 2016; Hacker, 2019; Metzl, 2019). Highlighting these double inequities, David Baron Smith (2016) powerfully writes, "The organization of health services reflected all the divisions of the caste system. In the rural areas and small towns white hospitals either excluded blacks altogether or relegated them to a few beds in a colored ward" (6). Recognizing the power of health care to equalize, black medical professionals and civil rights activists organized and placed pressure on both Presidents Kennedy and Johnson to provide health care insurance for the poor and the elderly as part of the broader struggle for racial equality in America (Smith, 2016). These advocates were critical in the creation of Medicare and Medicaid and, with the help of mass media and elites, likely connected the issue of health care to race as early as the 1960s—if not earlier.

Racial considerations were also influential in the "socialized medicine" campaigns put on by medical groups. The AMA's fear mongering during the 1960s no doubt reflected the AMA's own racist preferences², but also a strategic attempt to appeal to a racist white public (Smith, 2016). Indeed, accusations of "socialism" have long been used to stoke racist white rejection of new social programs in the US (Du Bois, 1933) and white opinion towards health care in this era likely racialized in response. For example, not long after hospitals began integrating in order to be eligible to receive Medicare funds, a Georgia constituent mailed his senators a lengthy message insisting to them that, "Medicare should be amended so that integration and civil rights should have nothing to do with Medicare. Those over 65 can do very little, if anything about civil rights or integration and they should not be made the 'Scapegoats' under Medicare."³ All told, this suggests that political elites, mass media, and individual experiences with the integration of hospitals may have raised the importance of race and racial attitudes in health care attitudes at least as early as the 1960s. Moreover, we know from Tesler (2012) that President Obama's association with the ACA similarly racialized white opinion towards health care from 2009 forward, leading to the following testable hypotheses:

- **H2a:** *Racially resentful rural whites will be less supportive of government health insurance than their*

²For example, up until the 1960s, across most of US, black physicians were educated in segregated medical schools, were employed at black hospitals, and were barred from entry into the AMA (Smith, 2016).

³Presented in Smith (2016), 142-143. Attributed to H.M. Yerkes. 1966. "Letters to Senators Herman E. Talmadge and Richard B. Russell." Robert Ball Correspondence Files, Social Security Administration.

less racially resentful rural peers.

- **H2b:** *Racial attitudes will be more likely to explain rural whites' health care attitudes during times when race is made salient and connected to health care.*

These empirical traditions imply, simply as a matter of the balance of group attachments in rural society (i.e. large numbers of racially resentful white Republicans), that rural places will be less supportive of government health insurance than urban places on average. Moreover, these results imply that any observable effects of “material interests,” lived experiences, or local health conditions must first push through a myriad of fundamental group attachments and symbolic considerations—all of which cut against support for health care reform—ultimately to change the typical rural person’s political behavior or to increase the pool of rural white support for government health insurance. Finally, these strong group loyalties may mask how many rural white people are aware and resentful of the health care realities facing them (i.e. therefore they are not blind to them), but ultimately do not change their underlying political attitudes and behaviors.

2.2 Partisanship, Racial Attitudes, and Rural Whites’ Health Care Attitudes, 1960-2000

To begin testing the descriptive predictions from the prior section, I use the American National Election Studies (ANES) Cumulative Data file. Since 1964, the ANES has regularly asked respondents about their support for government health insurance as well as their partisan attachments and their attitudes toward various social groups. As a result, historical correlational analyses are possible from that point forward. From 1956-1968 the ANES assessed support for government health care by asking respondents whether or not the government ought to provide, “doctors and hospital care at low cost.” From 1972-2016, the ANES asked respondents to array themselves on a seven-point scale of support for only private insurance through support for a universal government health insurance program. I use these items to measure respondents’ health care preferences.⁴ Urban/rural geographic information is available for ANES respondents from 1964-2000. As a result, urban and rural comparisons and subgroup analyses on rural white people are possible up until 2000.

Figures 2.1 and 2.2 plot yearly trends in whites’ support for government health insurance by whether the respondent lived in an urban or rural area (as defined by the ANES), using the two health care support measures from the ANES. In tandem, the figures suggest that rural white people, on average, were less supportive of government health insurance than urban white people from 1960 though 1988. However, as can be seen in Figure 2.1, over 70% of rural white people *supported* cheap government health insurance in 1960. Despite high levels, rural white support plummeted immediately thereafter—perhaps reflecting the success of

⁴Exact question wordings presented in Appendix A1.

Urban and Rural Trends in Support for Government Health Insurance, 1960-2000 (ANES)

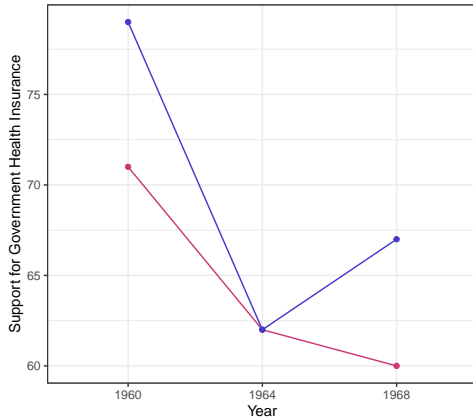


Figure 2.1: Cheap Government Insurance

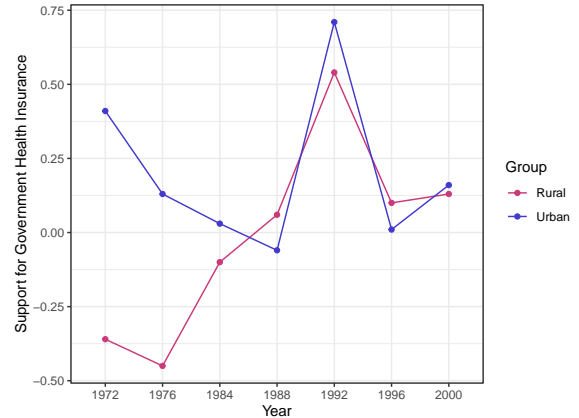


Figure 2.2: Government Insurance Scale

Reagan's AMA campaign. Interestingly, from 1988 through 2000 these urban rural differences became much more muted, ultimately disappearing by the turn of the century.

Changes in the partisan loyalties of white rural voters help explain historical trends in rural white support for government health insurance. Figure 2.3 plots the percentage of rural white people identifying with the Democratic and Republican parties from 1960-2000. To measure respondent partisanship, I code partisan-leaners and partisans dichotomously into their respective parties, omitting pure independents. In Figure 2.3, we can see that the number of rural whites identifying as Democrats fell from a high of over 60% in 1964 to under 45% by 2000. At the same time, Republican identification has increased, albeit not quite at equal rates through the year 2000. As a result of dwindling numbers of Democrats and rising Republicanism in rural areas (and vice versa in cities), the urban-rural geographic divergence in support for government health insurance is mostly a story of broader patterns partisan polarization on the issue and changes in the partisan composition of rural electorates.

Figure 2.3: Trends in Partisan Affiliation Among Rural Whites, 1960-2000 (ANES)

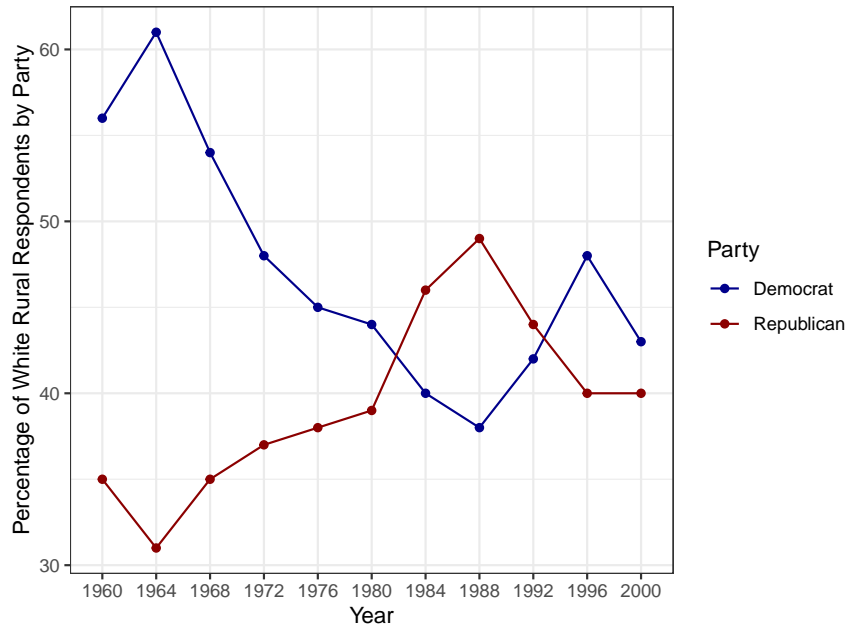


Figure 2.4 demonstrates how the aggregate changes in the partisan identification of rural whites has likely contributed to changing levels of support for government health insurance in rural communities. We can see that in 1960 majorities of both rural Republicans and Democrats supported government health insurance, with Republicans being somewhat less supportive. At that time during dawn of Medicaid and Medicare, an astonishing 60% of white rural Republicans supported government health insurance. However, from 1960 to 1964 (following the AMA’s anti-socialized medicine campaign), white Republican opinion began moving strongly against government health insurance. Following the party lead (e.g. Lenz (2013)), majorities of Republicans no longer supported government health insurance by 1964—down to under 40% in favor. During this same period, Democratic opinion towards government health care remained unchanged, with nearly 70% of Democrats consistently supporting government health insurance.⁵ Figure 2.5 shows that these partisan differences have only grown larger from 1972-2000. Rural white Democratic opinion has become more supportive of government health insurance over time. However, white Republican support for government health insurance over private insurance has remained at consistently low levels, declining at a somewhat more rapid pace from 1992-2000.

To historically sketch the influence of racial attitudes, I rely on the ANES Feeling Thermometer scores that ask respondents to provide their assessments or feelings toward African Americans as well as other social groups. These scores range from 0 to 100, where respondents are asked to rate groups they feel more

⁵Urban white Democrats during the same period were about 10-15% more supportive than their rural peers.

Partisan Trends in Rural Support for Government Health Insurance, 1960-2000

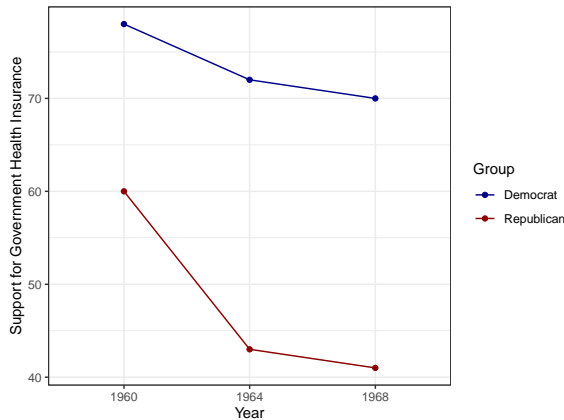


Figure 2.4: ANES, (1960-1968)

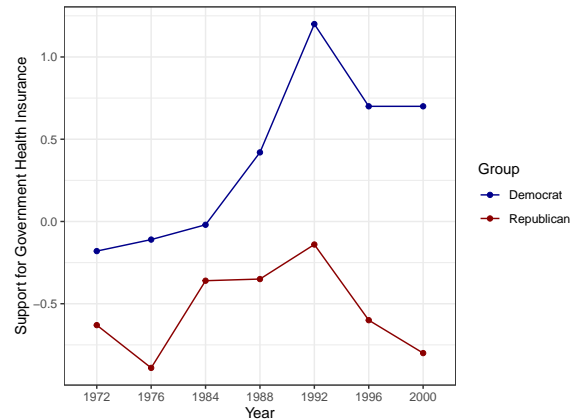


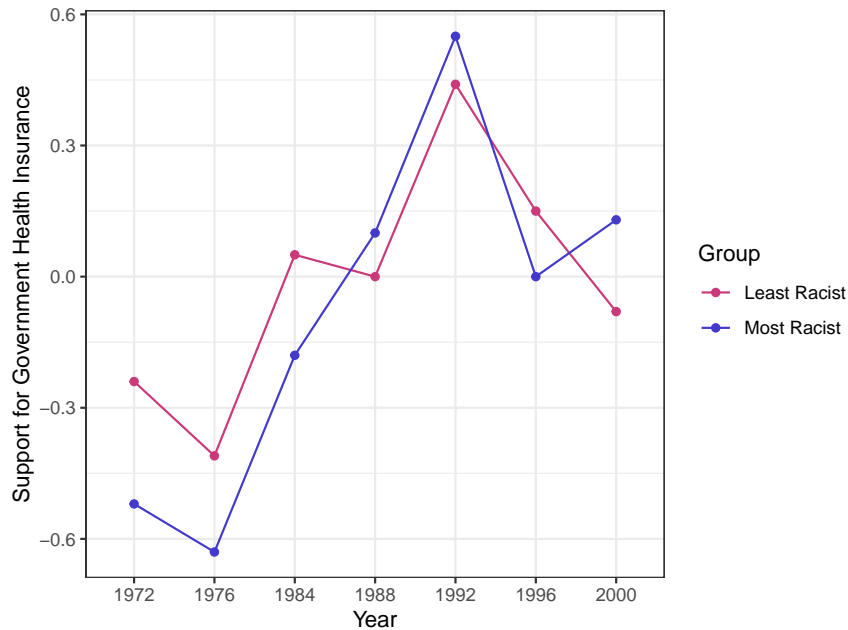
Figure 2.5: ANES, (1972-2000)

warmly or positively towards at the higher end of the scale. While Tesler (2012) and other related studies have relied on other measures of animus, like racial resentment (Kinder and Sanders, 1996), I rely on feeling thermometer scores due to this study’s time frame pre-dating the creation of the racial resentment and other more modern measures.⁶

Figure 2.6 compares the health care attitudes of rural white individuals who scored above (“High Racial Animus”) and below the median (“Low Racial Animus”) in feelings toward black Americans for that survey year. Consistent with an earlier racialization of health care story than Tesler (2012) finds, Figure 2.6 shows that from 1972-1988, white rural Americans who scored more highly in racial animus (or who had less warm feelings toward black Americans) were also less likely to support government health insurance than less racially resentful peers. However, between 1988 and 2000, no significant differences in health care attitudes remained for rural white Americans of varying levels of racial animus. Performing similar analyses on data from all white respondents for 2000-2016—when rural geographic identifiers are not available in the ANES—yields trends consistent with Tesler (2012), where white individuals with less warm feelings toward black Americans (higher in racial animus) were especially unsupportive of government health insurance from 2008 to the present—following Barack Obama’s ascendency to the presidency and his association with the ACA. These relationships are similar in size to the racial attitude relationships observed in the 1960s-1980s.

⁶Results are robust to including these more modern scales in years where data permits. I use these modern scales on the 2012-2020 data.

Figure 2.6: Racial Attitudes and Rural Support for Government Health Insurance, 1972-2000 (ANES)



2.3 Partisanship, Racial Attitudes, and Rural Whites' Health Care Attitudes, 2012-2018

Next, I expand the ANES analyses from the previous section to trace patterns in rural support for government health insurance from 2012 to 2018.⁷ To do so, I use data from the Cooperative Congressional Election Study (CCES). During these years, the CCES asked 80,000 rural white respondents whether they supported the ACA or supported repealing the ACA—exact wording depending on the year.⁸ Figure 2.10 plots the percentage of urban and rural whites in support of the ACA from 2012 to 2018. As in the early period, rural white support for government health insurance (the ACA) is consistently 5-10 percentage points lower than urban white support. However, as Figure 2.11 demonstrates, partisan differences *within* rural communities are considerably larger than the differences observed *across* the urban rural divide. From 2012-2018, between 75 and 90% of rural white Democrats supported government health insurance, while Republican support was never above 25%. Interestingly, these massive partisan differences in rural support for government health insurance are not much larger than the differences observed in the 1980s and 1990s, suggesting the most of the “growing” urban/rural divide in support for government health insurance is likely attributable to the *modest* increase in rural Republican partisan identification from the 2000s-today.⁹

⁷As best as the author can tell, no surveys from 2000 to 2012, which include geographic, partisan, racial, and health care attitudes, are publicly available.

⁸“Rural” is measured and defined here using the CCES data as the respondent living in a community in the bottom 50% of communities in terms of population density. While many rural communities are likely excluded due to this measurement strategy, we can be more assured that this selective strategy has only picked rural people.

⁹More subtly, these stable differences and the raw data imply that rural America may be less dominated by strong Republicans and has more partisan diversity than typically assumed.

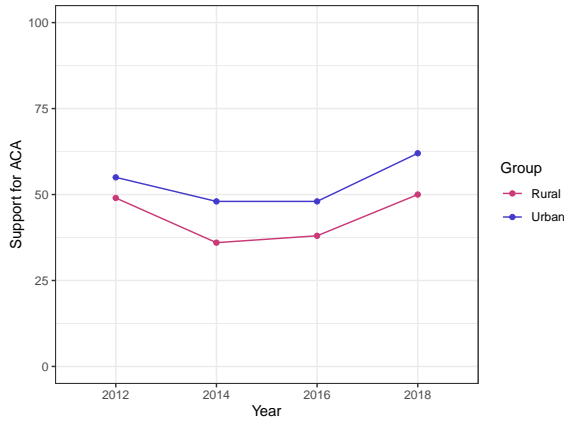


Figure 2.7: Urban/Rural ACA Support

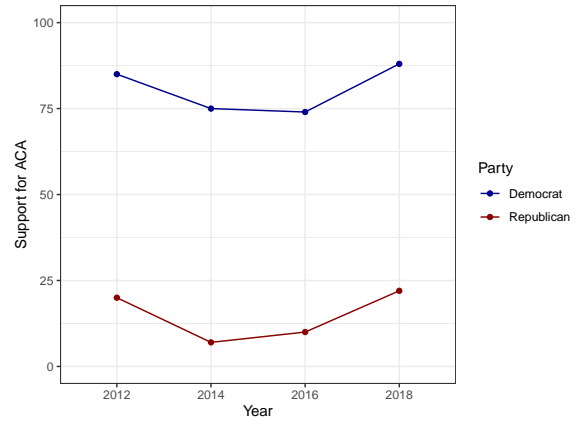
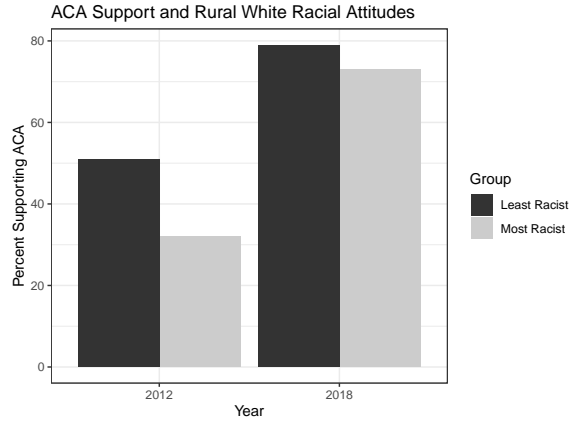


Figure 2.8: Rural Partisan ACA Support

The CCES has less consistently measured levels of respondent racial resentment.¹⁰ In the years where available, I scale respondent answers to two of the items from racial resentment battery from Kinder and Sanders (1996). I use rural white responses to the items: “Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors” and “Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.” I split respondents into above (“Most Racist”) and below (“Least Racist”) the median values in racial resentment. Consistent with Tesler (2012) and Metzl (2019), Figure 2.16 demonstrates that rural whites who are higher in racial resentment are less supportive of the ACA than their less racially resentful peers. Interestingly, however, these differences are far more muted than the partisan differences uncovered previously. Moreover, by 2018 over 70% of the most racially resentful rural whites supported the ACA, up from 35% in 2012—perhaps reflecting President Obama’s exiting of the national stage (i.e. Tesler (2012) in reverse).

¹⁰The CCES does not use the same racial resentment or racial animus items in every year. However, they do ask two of the same items in 2012 and 2018, one wave during the Obama presidency to be consistent with Tesler (2012) and another after to gauge potential changes after President Obama’s exit from the White House. I report results using these analyses to remain consistent across years.

Figure 2.9: Racial Resentment and ACA Support (CCES)



I next more rigorously examine the independent influence of the symbolic group attachments on rural whites’ support for the ACA in 2012 and 2018 separately.¹¹ I estimate a linear probability model of support for the ACA of the following form:

$$Y_i = \alpha RacialResentment_i + \beta Republican_i + \gamma Democrat_i + X_i + e_i \quad (2.1)$$

,where Y_i represents an individual respondent’s probability of supporting the ACA, $\alpha RacialResentment_i$ are scaled respondent answers to two of four racial resentment items¹², $\beta Republican_i$ and $\gamma Democrat_i$ are indicators for Republican and Democratic partisanship measured dichotomously with leaners coded as partisans, X_i is a series of demographic controls¹³, and e_i represents idiosyncratic error—results are presented in Table 5.4.

As Table 5.4 demonstrates, Republican partisanship continues to undermine rural support for government health insurance, as it has since the 1960s. These results imply that the probability a typical white, rural, Republican supported the ACA was about 0.27 less likely than the typical white rural independent. Democratic partisanship is also associated with increased support of the ACA by nearly identical offsetting amounts, implying a partisan gap in support between rural Democrats and Republicans of over 50 percentage points. As in earlier decades, racial resentment also appears to be fundamental to explaining rural white health care attitudes. The results of column 2 of Table 5.4 imply that a single standard deviation increase in racial resentment is associated with a 14 percentage point decrease in support for the ACA in 2018, a substantively large relationship. Even after President Obama’s term ended (a la’ (Tesler, 2012)), racial attitudes continued to significantly predict rural white support for the ACA.

¹¹Again, these are the years were racial resentment data is available.

¹²See appendix for details. Robust to using Black Feeling Thermometers as in the previous section.

¹³I control for the respondents’ age, family income, educational attainment, and gender.

Table 2.1: Partisanship, Racial Resentment, and Support for Government Health Insurance (CCES)

	<i>Dependent Variable:</i>	
	ACA Support	
	(2012)	(2018)
Racial Resentment	-0.048*** (0.002)	-0.054*** (0.001)
Democrat	0.248*** (0.010)	0.271*** (0.009)
Republican	-0.273*** (0.009)	-0.214*** (0.008)
Constant	0.927*** (0.018)	0.846*** (0.015)
Controls	✓	✓
Observations	15,833	18,640
R ²	0.402	0.437
Adjusted R ²	0.402	0.437

Note: *p<0.1; **p<0.05; ***p<0.01

2.4 Blame it on the Pained? Health Care Attitudes of Policy-Affected Rural Whites

The influence of the group attachments and the long-term trends observed in prior sections are clearly self-undermining for the health care of all rural individuals. However, the attitudinal patterns that have been uncovered thus far are *on average* trends and do not inherently speak to whether poor or policy affected rural whites (the focus of Frank and others’ more qualitative depictions of rural “blindness”) also reject government health insurance for the same reasons and at the same rate. Despite this, there is ample reason to suspect that racial attitudes and partisanship similarly affect poor and policy-affected rural white people.

For example, consider this exchange in Metzl (2019) between white focus group respondents in Tennessee when asked their thoughts about government health care. Respondent 1: “Its all about the Democrats who want to see a social system.” Respondent 10: “[The] Democratic Party is socialist now; they’re communists.” Highlighting the importance of race and coded-racial language—some of which nearly mirrors survey items meant to capture racial resentment—one respondent remarked, “[T]here’s a lot of people that use welfare, the welfare department and stuff that needs to get jobs, quit having children, and really get buckled down now. I mean, I’m not saying *everybody*; I’m just saying there’s people that have ten and twelve kids.”¹⁴ Explicitly clarifying the role of racial resentment in the “coded” language above, Respondent 9 stated, “the worst thing [about government health insurance] is that what pisses Americans off is that we are pocketing all the Mexicans...everything they want, we’re paying for it (149-150).”

To quantitatively examine the modern influences of these partisan and racial attitudes, I again make use

¹⁴Emphasis added by author.

of the CCES data from 2012-2018. The CCES interviewed nearly 80,000 rural white respondents about their health care attitudes AND participation in government insurance programs like Medicaid and Medicare. With these data, I examine the degree to which rural whites who are actually affected by government health insurance policies also have their health care preferences similarly affected by group attachments. Specifically, I compare support for government health insurance among rural whites who do not have health insurance and rural whites who currently have government health insurance through Medicare, Medicaid, etc., with those who have private insurance or are insured with their employers. These analyses more concretely tackle the degree to which rural white people, who would actually directly benefit from extended or improved government health insurance, are unsupportive of it nevertheless. To measure support for government health insurance, the CCES asked respondent approval of the ACA/repeal of the ACA from 2012-2018. I rely on a dichotomous measure of ACA support, where more ACA-supportive answers are scored 1 and unsupportive answers are 0. Figures 2.10, 2.11, 2.12, and 2.13 plot the percentage of rural white respondents in support of the ACA by the respondents' insurance status (not insured, government insurance, private/employer insurance) for 2012, 2014, 2016, and 2018 separately.

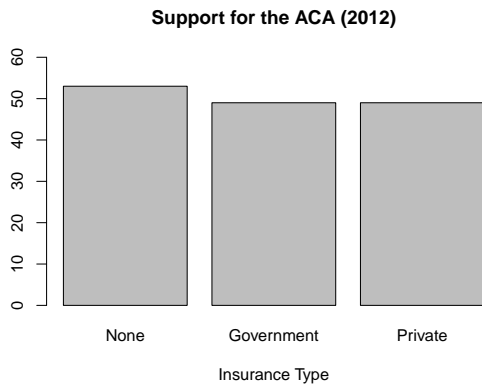


Figure 2.10: ACA Support (2012)

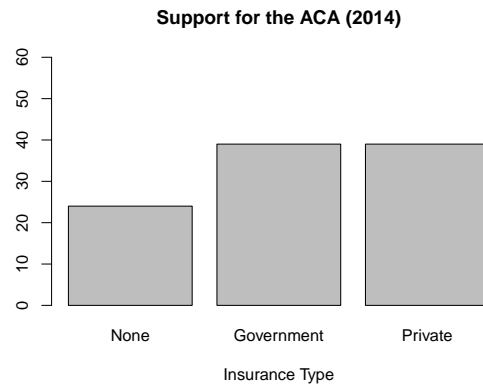


Figure 2.11: ACA Support (2014)

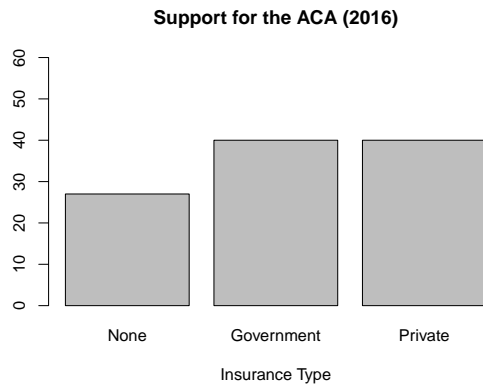


Figure 2.12: ACA Support (2016)

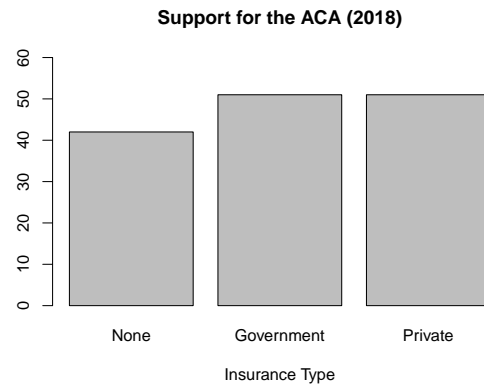


Figure 2.13: ACA Support (2018)

Support for the ACA among rural whites on government insurance (Medicare/Medicaid/etc.) and on private/employer insurance are nearly identical. Between 2012 and 2018, rural white support for the ACA among the government insured and the privately insured hovered in the 40%-50% range for both groups. More interestingly, support for the ACA among the non-insured has varied considerably. In 2012, a majority (roughly 55%) of uninsured rural whites supported the ACA. However, by the time the ACA was implemented in 2014 and began to effect health insurance markets, rural white support among the uninsured dropped drastically to about 25%, only rebounding again in 2018 to 40%. This initial decline in rural support among the uninsured likely reflects changes in the composition of the rural uninsured due to the positive effects of the ACA. According to the CCES data, the median family income of rural white respondents without health insurance climbed by roughly \$10,000 from 2012 to 2014 (from nearly \$20-29,000 to \$30-39,000) as the ACA began to be implemented. This change occurred even though the rural median family income stayed constant through the period (\$50-59,000). As a result, and consistent with the positive insurance effects of the ACA (Clinton and Sances, 2018), the population of uninsured rural white people simply shrunk in numbers and moved up the income ladder.

While this shift is a natural reality of the positive insurance effects of the ACA, these compositional changes also imply that the group of “nones” who do not support the ACA are relatively better off than the group of “nones” before the ACA took effect in 2014. Indeed, regression analyses predicting uninsured status reveal that rural white women, political independents, the unemployed, Southerners (likely due to the lack of Medicaid expansion in the region), and the less educated are the individuals most likely to report not having health insurance after 2012. These rural white “nones” are therefore unsupportive of government health insurance either because they’re not eligible to benefit from it based on employment, geography, or income, they’ve potentially had recent bad experiences with health or government insurance, and/or they’ve

chosen not to have insurance intentionally.

Next, I descriptively explore the extent to which partisan and symbolic racial considerations are responsible for the patterns of health care support observed among these more vulnerable rural populations. Specifically, I assess the degree to which rural white people symbolically reject government when they are personally-benefiting from it. I start by comparing levels of ACA support from 2012 to 2018 among uninsured rural white Republicans and Democrats and rural white Republicans and Democrats actually receiving government health insurance.¹⁵ Figure 2.14 compares rural Republican and Democratic ACA support among uninsured rural whites. Massive partisan differences exist among this group. From 2012-2018, large majorities of uninsured rural white Democrats supported the ACA, including a high of nearly 80% of uninsured Democrats in support of the ACA in 2012 and 2018. Uninsured rural Republicans, in stark contrast, were highly unsupportive of the ACA, with as few as 5% of rural uninsured Republicans supporting the policy in 2014.

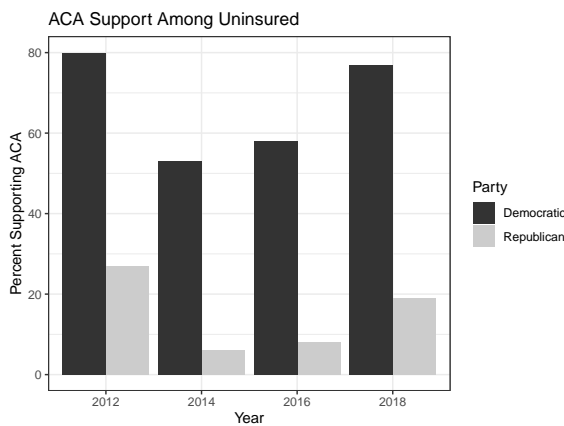


Figure 2.14: ACA Support, Uninsured

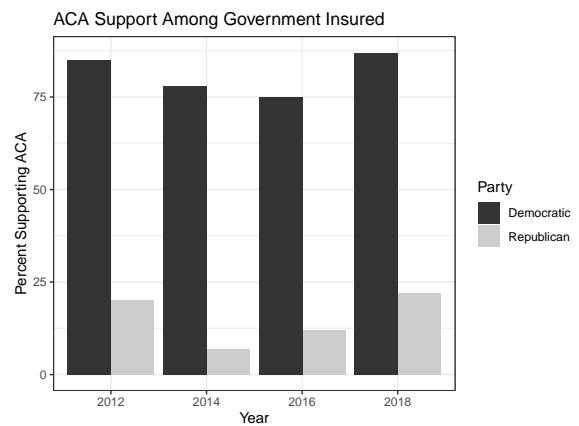


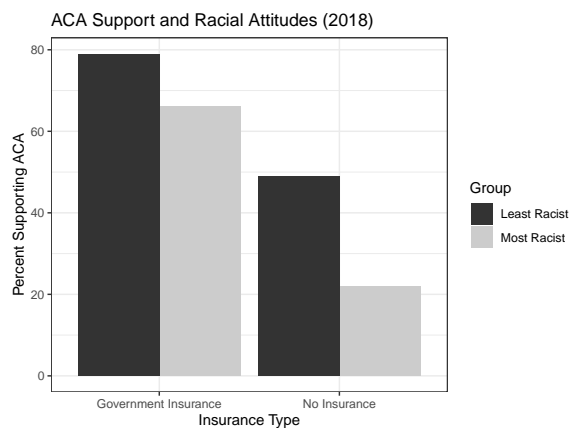
Figure 2.15: ACA Support, Gov't Insured

Interestingly, these partisan patterns hold for rural whites *currently receiving government health insurance*. Figure 2.15 compares levels of ACA support among rural white Democrats and Republicans receiving government health insurance. Even when directly benefiting from government insurance, the vast majority of rural Republicans disapprove of the ACA. These low levels of support for benefiting receiving rural whites mirror the patterns of uninsured rural Republicans and just barely exceed levels of support among more well-off and privately insured rural Republicans. Like Democrats generally, rural white Democrats receiving government insurance were generally highly supportive of the ACA. Across all forms of health insurance experiences, the partisanship of the respondent is the most fundamental factor shaping their level of support for government health insurance—even when they are directly affected by the policy.

¹⁵Partisan and racial patterns of support are nearly identical for the privately/employer insured and those on government insurance. I do not provide this comparison group for simplicity as a result.

Although available in fewer years, the CCES has also assessed rural white respondents' levels of racial resentment, alongside their levels of ACA support and insurance experiences.¹⁶ As a result, similar analyses are feasible for limited years. To explore the impact of racial attitudes on rural whites' health care attitudes, I code respondents as being the most racially resentful if their racial resentment score was above the median value for that year and zero otherwise. Figure 2.16 compares levels of ACA support among the most and least racially resentful rural whites. Interestingly, and unlike partisan attachments, the influence of symbolic racial attitudes on rural whites' health care attitudes is far more muted for rural whites actually benefiting from government health insurance.

Figure 2.16: Racial Resentment and ACA Support



As Figure 2.16 demonstrates, even the most racially resentful rural whites are highly supportive of the ACA if they are receiving government health insurance. Over 65% of the most racially resentful rural white people but who are government health care support the ACA. This level of support far surpasses levels of support among similarly racially resentful people who are not receiving government health insurance—who support that ACA at just 20% rate. These results do not, however, imply that racial attitudes are unimportant. Rural whites who are on government health insurance and score high in racial resentment are less supportive of the ACA than their less racially resentful peers by nearly 15 percentage points. Again, a substantively massive difference. Moreover, the largest effects of racial attitudes appear to be among the rural uninsured.¹⁷ This low level of ACA support is roughly equal to the levels of support observed for Republicans all of insurance and income stripes. Indeed, as Engelhardt (2018) suggests, these differences in racial resentment are nearly completely subsumed within partisan conflict, with nearly all of the least racially resentful whites

¹⁶The same two racial resentment items were not consistently asked in every wave. Other racial items were used in different years and may tap into different constructs. Moreover, I present 2018 here, but the 2012 results are nearly identical and there is little reason to expect sizable changes from 2014-2016.

¹⁷These differences are not likely only attributable to policy feedback effects. We do not know if racial attitudes are why these rural people do not have health insurance to begin with or if they attitudes simply change once benefiting from the policy.

identifying as Democrats.

These descriptive analyses suggest that racial attitudes and partisanship, especially, are fundamental in shaping rural whites' health care attitudes—even among the uninsured and among rural whites who are receiving government health insurance. Next, I more rigorously examine whether having government health insurance moderates the effects of partisanship and racial attitudes on support for the ACA. These analyses hold constant the independent influence of other attachments and demographic differences. To do this, I again draw on the CCES to perform these analyses predicting support for the ACA. The empirical models take on the following general form:

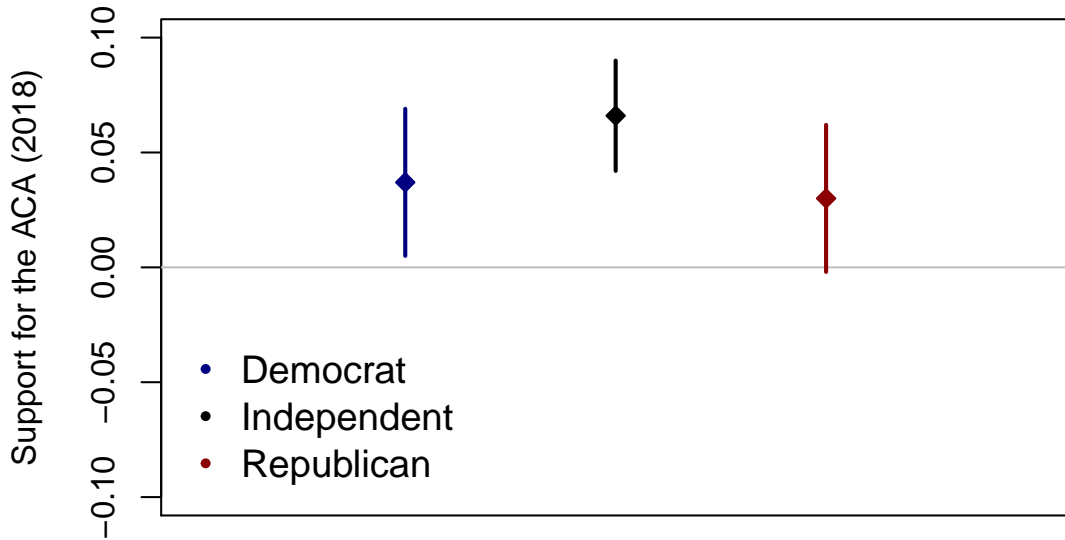
$$\begin{aligned}
 Y_i = & \alpha \textit{GovernmentInsurance}_i + \beta \textit{Republican}_i + \gamma \textit{Democrat}_i + \zeta \textit{RacialResentment}_i + \\
 & \theta \textit{GovernmentInsurance}_i \times \textit{Republican}_i + \eta \textit{GovernmentInsurance}_i \times \textit{Democrat}_i + \quad (2.2) \\
 & \omega \textit{GovernmentInsurance}_i \times \textit{RacialResentment}_i + X_i + e_i
 \end{aligned}$$

, where Y_i represents an individual respondent's probability of supporting the ACA and $\alpha \textit{GovernmentInsurance}_i$ represents whether or not the respondent has government health insurance (measured: 1,0). $\beta \textit{Republican}_i$ and $\gamma \textit{Democrat}_i$ are again indicators for Republican and Democratic partisanship measured dichotomously with leaners coded as partisans. Racial resentment is the two-item version of the scale from Kinder and Sanders (1996). I interact the respondent's insurance status with her partisanship and racial attitudes to statistically test whether partisan and group considerations condition the influence of personal benefits. X_i is a series of demographic controls¹⁸, and e_i represents idiosyncratic error. I present these findings graphically in Figures 2.17 and 2.18.¹⁹

¹⁸I control for the respondents' age, family income, educational attainment, and gender.

¹⁹Full regression results are presented in Appendix 2 Tables 6.8 and 6.9.

Figure 2.17: Partisan Effects of Government Health Insurance on Support for the ACA



Marginal Effect of Government Insurance by Party

Figure 2.17 provides the estimated marginal “effect” of a rural white person being on government health insurance in 2018 (i.e. Medicare, Medicaid) relative to co-partisans not directly benefiting—allowing these differences to vary by the partisanship of the respondent. As Figure 2.17 demonstrates, rural whites who are directly benefiting from government health insurance are more supportive of the ACA than their peer co-partisans—regardless of the party of the respondent in question. The results presented in Figure 2.17 imply that rural political independents are about 6 percentage points more likely to support the ACA if they are personally benefiting from government insurance. Rural Democrats and Republicans who are receiving government health insurance are also more supportive of the ACA than their co-partisan peers, albeit by considerably smaller amounts—about 2-3 percentage points for each.

Figure 2.18: Effects Racial Resentment and Government Health Insurance on Support for the ACA

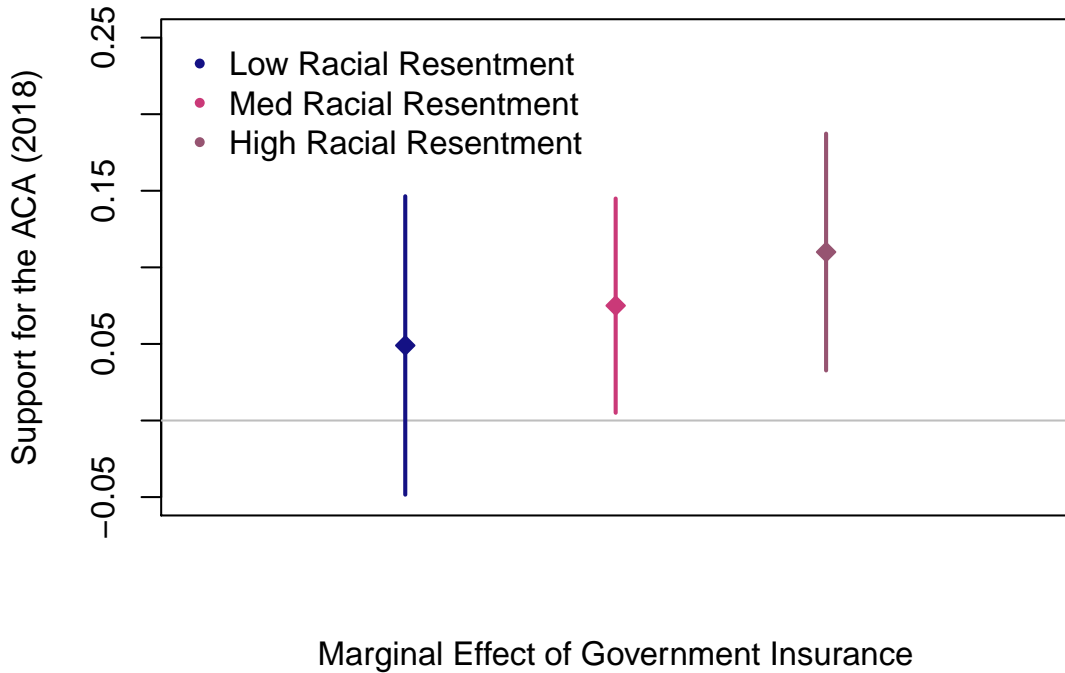


Figure 2.18 presents the estimated marginal “effect” of a rural white independent being on government health insurance in 2018 across a range of values of racial resentment. I present the predicted marginal effects for rural whites at the minimum (“Low Racial Resentment”), the median (“Med Racial Resentment”), and maximum (“High Racial Resentment”) values of racial resentment for the survey year. As Figure 2.18 demonstrates, the largest gains in support from being on government health insurance are from the most racially resentful rural white people. The most racially resentful rural whites are about 10 percentage points more supportive of the ACA if they were actually on government health insurance than whites of similar racial resentment levels but not on government health insurance, a substantively large difference. Smaller, but statistically significant relative gains in support are also observed for rural whites of lower levels of racial resentment and on government health insurance.

These findings demonstrate consistent evidence of an important role for policy benefits among less well-off rural white people. Rural white people of variety of social groups and attachments are more favorable towards government health insurance when they are actually receiving the benefits. However, these marginal

policy effects mask the dominating forces of partisanship in explaining rural white people's health care attitudes uncovered in all of the prior analyses. For example, while Figure 2.17 reveals that rural white Republicans are more supportive of the ACA if they are directly benefiting from government health insurance, the bar plots reported above also imply that these differences between benefiting-Republicans and other Republicans are mostly negligible, with still fewer than 25% of *policy-receiving* Republicans supporting government health insurance. Interestingly, it is racial attitudes that appear to be mostly easily overcome by policy benefits. Racially resentful rural whites massively increase their support if receiving government insurance themselves. Clearly, even though material interest seems to matter for rural whites (i.e. they are not blind or unaware of their personal circumstance), partisan attachments simply inhibit higher levels of support for government health insurance in rural communities.

2.5 Discussion and Conclusion

This chapter traces the historical and contemporary influences of symbolic racial attitudes and partisan attachments on rural white people's health care attitudes. Over the past sixty years, Republican partisanship has consistently been the single largest factor undermining rural support for government health insurance. Across all specifications and subsamples, rural Republicans reject government health care at high rates, even when personally benefiting from it. Racial attitudes also have been important for understanding rural whites' health care attitudes, but less consistently and substantively over time than partisanship. Rural whites who are more racially resentful are less supportive of government health insurance in general. Racial attitudes were predictive of health care attitudes in this way from the 1960s through the 1980s and again from President Obama forward, but less so during the 1990s and 2000s. Moreover, and unlike partisanship, the largest effects of symbolic racial attitudes appear for individuals not personally benefiting from or negatively affected government health policy. In other words, partisan attachments seem to be stronger anchors against potential personal benefit than racial attitudes for rural white people.

These results demonstrate that Republican partisanship has been and continues to be the key driver of undermining support for government health insurance for white rural Americans. The increasingly large numbers of rural Republicans, many of whom hold racially resentment attitudes, undermines political support for government health care in rural areas simply as mathematical reality. Interestingly, however, rural Democrats and independents are actually the individuals that are most different from their urban co-partisan peers. Both rural Democrats and independents—though more supportive than rural Republicans—are less supportive of an increased role for government in improving health care than their urban, white co-partisan peers. These overall rural differences may highlight an endemic role for cultural and social grievances undermining support for government health care across the partisan divide in rural America (e.g. Cramer (2016)) and rural

perceptions of the inferior quality of government services (e.g Lerman (2019)). More work is needed on these possibilities.

These findings also contribute a number of important literatures within political science and popular political commentary. Most directly, these results contribute to the growing body of literature on the politics of the white working class and rural America. Unlike popular depictions of increasing rural blindness, such as Frank (2004), these findings highlight that rural people are simply Republicans. As the elites in the Republican Party turned against government health insurance, so did their rural voters. Moreover, these analyses show that, again unlike Frank (2004), the symbolic racial and partisan attachments that undermine rural support for health care are not new. Instead, these forces have simply increased modestly in strength.

Moreover, the descriptive patterns highlight the continued importance of elites in mass opinion formation. The changing elite representation of rural America from mixed-partisan to heavily anti-government, Republican on both national and local levels (e.g. Schaffner et al. (2020)) and the replacement of strong local rural news with more national and conservative sources (e.g Martin and McCrain (2019); Kim et al. (2020)) has likely shifted the balance of elite messaging on health care from a mixed ideological signal to a clearer and strong anti-government health care signal (e.g. Zaller (1992)), leading to lower levels of support for government health insurance in rural communities than in the past. However, the fluidity of individual-level health care attitudes in response to changes in elite behavior over time and personal experiences suggests that the public may not hold entrenched opinions on the issue (e.g. Bartels (2003)). As a result, increasing the benefits experienced by rural people or by divorcing the issue from partisan politics all together via ballot initiative processes (e.g. Franko and Witko (2018)) may increase rural white support for government health insurance.

Accordingly, future work is needed on the role of partisan and racial on voting behavior in state ballot initiative elections related to Medicaid expansion in deeply Republican states. Do these attachments, which seem to undermine public opinion towards government health insurance, similarly undermine individuals' direct votes on the topic? Relatedly, work is need on the role of poor rural health conditions on support for Medicaid expansion ballot initiatives in rural and Republican areas. How much do lived experiences shape patterns of support in these areas? Moreover, more work is required to better understand what types of political communication and messaging strategies can lead to increased buy-in from racially resentful and Republican rural whites.

Finally, this work most drastically falls short on explaining the health care attitudes of ethnic and racial minorities in rural communities. Subject to even worse rural health conditions (Smith, 2016), members of racial and ethnic minority groups tend to respond politically to their environments differently than rural white people. These differences likely reflect varied norms of political behavior (White and Laird, 2020; Anoll,

2018) and emotional responses to politics across different racial and ethnic groups (Phoenix, 2019). More work is needed to more fully understand urban and rural differences in political attitudes and behaviors across racial and ethnic groups. Finally, more research is needed on how local and personal health experiences shape the political behaviors of underserved and marginalized social groups within rural communities.

CHAPTER 3

Down with the Sickness? Health Experiences, Rural Resentment, and Support for Government Health Insurance

“[L]ook at this place! This community is dying! It seems to me I’m paying for health care for people who aren’t working half as hard as I am, and even though I am working myself to death, I can’t afford to pay for my own health care.” - *Anonymous Rural Wisconsin Man* (Cramer, 2016, p. 146).

Rural people are dissatisfied and resentful about the status of their health care. Given the many health care difficulties facing rural communities, such as increased deaths of despair and worsening access to quality health care (Hochschild, 2018; Macy, 2018; Metzler, 2019; Case and Deaton, 2021), this resentment on its face appears to be justified and based in the harsh realities on the ground. However, rural white people’s health care behaviors and attitudes seem to be more reflective of underlying partisan loyalties and racial attitudes (Frank, 2004; Metzler, 2019; Clinton and Sances, 2020; Kim et al., 2020; Clinton et al., 2021), suggesting that rural whites ignore the unpleasant realities that surround them. How can it be, then, that rural white people seem to be so resentful and angry about their health care conditions, but also exercise their political voice in ways that seem to not reflect this substance or even undermine their own health?

I explore this puzzle by examining the extent to which local health care conditions actually relate to rural white people’s preferences for government health insurance. Moreover, and drawing on Cramer (2016), I assess whether rural whites are resentful about their local health environments and how these resentful attitudes, in turn, affect support for government health insurance. I find that at least since the 1970s, rural white people living in communities with worse public health conditions have consistently been less supportive of government health insurance than similar rural white people living with more favorable conditions.¹ Using a variety of public health measures and samples, rural people tend to respond to negative health environments by wanting less and not more from government. This negative relationship obtains net of the partisan, racial, and religious attachments that Frank (2004) and others have previously highlighted. These results suggest that even the strong partisan and symbolic influences that have been historically relevant in explaining rural whites’ health care attitudes fail to fully capture why rural people respond to poor health conditions by wanting less government.

¹Interestingly, the exact opposite pattern emerges when comparing urban whites of varying health environments, as worse urban health environments tend to be associated with increased support for government insurance among urban white people. See Appendix 3 Tables 7.3 and 7.4.

To further probe why this rejection occurs across partisan, racial, and religious divides, I utilize a nationally representative survey of just under 1000 rural white people collected by YouGov in January 2020. Using an original survey battery based on Cramer's (2016) rural resentment concept, I find that rural whites' who live in communities with more dismal health care conditions tend to have more resentful attitudes towards cities and government. In turn, rural white people developing these resentful attitudes toward government and cities are less supportive of government health insurance. These findings suggest that potentially across a fair amount of American history, and especially in more modern times, rural white people respond to the negative forces in their lives by wanting less and not more from government, especially if they blame the government to begin with. Subgroup analyses reveal that these rural resentment findings are strongest for the poorest rural white people, suggesting that it is the most aggrieved and policy-affected rural white people who are most clearly responding with a resentful, rejection of government. Importantly, this rural resentment is associated with declines in support for government health insurance for rural independents, Democrats, and Republicans alike and net of other influential social attachments.

Consistent with Cramer (2016), these findings suggest that rural whites are not blind or unaware of the inequalities and negative conditions around them. Instead, rural grievances are one of the mechanisms by which they respond to and come to understand local conditions. As a result of elites, mass media, and rural social attachments (e.g. Hacker and Pierson (2020); Kim et al. (2020); Cramer (2016)) rural whites blame the government for their problems and are envious of the treatment of city people. On one hand, this response seems somewhat logically-derived and based on actual government failure. Rural people seem to be blaming the government for the very real and bad things around them. However, they tend to do so in a harmful way that involves scapegoating and raging in envy at the imagined better-off city *them* (Wuthnow, 2018). On the other hand, this response is clearly self-undermining as private health care incentives are one of the key reasons why rural health care is dismal to begin with (Chartis, 2020; Lindrooth et al., 2018) and increased government involvement in health care has proven beneficial for rural populations (Clinton and Sances, 2018).

These findings help us understand one of the most puzzling aspects of American politics: why poor rural whites are so against government even though government action would likely help them. While some described the declining levels of rural support for government intervention into rural economies and health care as evidence of growing rural irrationality, this work suggests that rural white people are not irrational or blind. Instead, rural people tend to react somewhat retrospectively about their health care environments, blaming the government for poor conditions. This resentful blame towards government causes rural white people to opt out of wanting government assistance all together. These findings suggest that elite messaging attempts to increase rural support for health care must reckon with these cultural anti-government differences that undermine government support for many rural people. Finally, these findings also suggest that more

favorable rural health experiences, especially with government programs, will likely increase support for government health insurance in rural communities.

3.1 Blind or Resentful? How Bad Experiences Undermine Support for Government

Rural communities are considerably less healthy and have more restricted access to quality health care than urban ones. Moreover, people living in states under conservative, Republican leadership tend to experience even worse health conditions than Democratic-led states (Montez et al., 2020), likely making these public health threats even more dire for large swaths of the rural US. Despite this, rural people are highly supportive of the Republican Party, seemingly rejecting government assistance to improve their health care. Sociologist Arlie Russell Hochschild (2018) refers to this as, “The Great Paradox,” and notes that, “Across the country, red states are poorer and have more teen mothers, more divorces, worse health, more obesity, more trauma-related deaths, more low-birthweight babies, and lower school enrollment. On average, people in red states die five years earlier than people in blue states” (8). And yet, the puzzling rural rejection of government—and especially government health care—by rural white people continues.

Academic commentaries offer a number of theoretical answers to as to why this “Great Paradox,” which undermines rural support for government health insurance, has developed. For example, political scientists have documented in a variety of policy domains how symbolic social attachments and group attitudes are likely to be foundational to most people’s political attitudes and behaviors (Campbell et al., 1960; Kinder and Kam, 2010; Achen and Bartels, 2016). Partisan identities and attachments most forcefully shape policy attitudes and evaluations of the political environment across space and time in US politics (Achen and Bartels, 2016; Bartels, 2002). As such, the growing proportion of rural white Republicans, of all income groups, has contributed to the aggregate patterns of lack of rural support for government health care. Moreover, as Republican elites have adopted more stridently anti-government positions (Hacker and Pierson, 2020), their voters have followed by adopting less supportive attitudes toward government health insurance (Hochschild, 2018; Lenz, 2013).

Racial attitudes are also likely important for explaining the lack of rural support for government health insurance (e.g Kinder and Sanders (1996); Carmines and Stimson (1989); Gilens (1999); Kinder and Kam (2010)). Racial considerations shape individual-level demands for many social welfare policies and health care attitudes directly (Schaffner et al., 2018; Mutz, 2018; Banks, 2014; Tesler, 2012; Winter, 2008; Gilens, 1999). Perhaps most famously, Gilens (1999) demonstrates that as the media and elites connect public policies to race or racialize the recipients of public programs, whites’ racial attitudes become more predictive of their policy attitudes. Building on this theorizing, Tesler (2012) shows that President Obama’s association with the Affordable Care Act connected whites’ health care and racial attitudes during the Obama era. As a

result, racial attitudes are also commonly offered as an a theoretical explanation for the lack of rural support for government healthcare.

Evangelical Christian adherence is also likely to be fundamental for explaining rural whites' health care attitudes. Since the 1950s, and especially since the Reagan presidency, Evangelical groups have partnered with the Republican Party in mutual support of socially and fiscally conservative issue positions, including opposition to universal health care (Kruse, 2015). Frank (2004) pays considerable attention to religion and the politics of abortion in his treatment of rural rejections of government. As such, one's level of attachment to Evangelical Christianity or so-called Christian "religiosity" has likely become a core driver of many rural white voters issue positions (e.g. (Layman, 2001)).² Indeed, the allegedly religion-induced rural resistance of abortion and same sex marriage rights contributes to the growing of the polarization between Democrats and Republicans as well as urban and rural America (Hetherington and Weiler, 2009). Conversely, growing numbers of secular people may further divide the religious from the non-religious in rural communities (Campbell et al., 2020). As a result, we have ample reason to suspect that these types of "religious" attitudes will influence how rural Americans understand their health care needs.³

The mentioned theoretical traditions provide strong—and not surprising—expectations for the role of symbolic religious, racial, and partisan attachments in rural whites' health care attitudes. These symbolic attachments of rural white people quite clearly cut against support for government health care and appear to reflect a rural "blindness" to local health needs. However, many scholarly accounts demonstrate convincingly that suffering rural people are not unaware of or blind to their despair (Macy, 2018; Case and Deaton, 2021). Instead, as Cramer (2016) has demonstrated, rural people tend to understand social problems through a prism of how the issue affects rural communities like theirs and with a hesitance towards the use of government to address the problem.

This rural identity or resentful prism includes a positive attachment to rural culture, beliefs that rural communities are receiving less than their fair share from government and that resources go to cities, negative views of government in general, and worries that rural life is in danger due to the decisions of cities, the media, and government (Cramer, 2016). Unlike racial attitudes, religion, and partisanship, which all tend to be more stable attitudes, this type of attachment or bundle of attitudes is partially developed *in response* to local and personal experiences and with rural considerations at the forefront of the mind. While rural resentment is also predicted to lead to lowered supported for government health care, it does not reflect blindness to circumstance. Rurally resentful people blame the government for their bad health experiences

²Some have argued that this connection is less about attachment to religion and is instead about how religions offer charity-based substitutes for government action, thereby undermining support (Scheve and Stasavage, 2006).

³Margolis (2018) argues these divides are today mostly a function of how partisan attachments effect patterns of religious observance and not the other way around.

and in turn want less and not more of it.

Consider this quote from anonymous rural Wisconsin person given to Cramer (2016) when asked about why they do not support the ACA: “The government must be mishandling my hard-earned dollars, because my taxes keep going up and clearly they are not coming back to benefit people like me. So why would I want expansion?” (Cramer, 2016, p. 146). Due to his resentful feelings, the low quality of health care in his community, health care costs, and perceived poor or biased government performance, this rural man wants less government and not more to solve his problems. As a result, this type place-based identity or rural attachment offers somewhat of middle ground between group considerations and lived experiences and likely affects how objective conditions are translated into rural political voice (Lyons and Utych, 2021; Munis, 2020; Jacobs and Munis, 2019; Wuthnow, 2018; Cramer, 2016). Moreover, as Cramer (2016) argues, these feelings are likely to cross the partisan divide and lead to lower support for government from rural whites in general. This perspective leads to several testable empirical predictions:

- **H1:** *The worse conditions are in rural communities, the less supportive of government health insurance rural whites will be.*
- **H2:** *The worse conditions are in rural communities, the more resentful rural whites will feel toward government and cities.*
- **H3:** *Rurally resentful rural whites will be less supportive of government health insurance than their less rurally resentful peers.*

Conversely, there is ample reason to suspect that worsening local conditions produce the exact opposite response, with worse conditions leading to increased demand for government health insurance. Indeed, rural health conditions may actually be so severe that the conventional wisdom of total rural blindness from Frank (2004) or even Cramer’s (2016) middle ground have missed the mark on how unreflective rural health attitudes are of the objective realities on the ground. For example, much of rural America has been ravaged by the opioid epidemic for the last three decades (Case and Deaton, 2021; Macy, 2018) and individual attitudes toward opioid related policies seem to be driven, in part, by individuals’ local self-interest (de Benedictis-Kessner and Hankinson, 2019). Moreover, recent research suggests that voters in general respond to local objective conditions in ways consistent with their self-interest (e.g. de Benedictis-Kessner and Warshaw (2020)).

Additionally, large scale policies, like national health care programs, seem to incentivize voters to behave in self-interested ways in support the policy (Campbell, 2002). Even on a more micro scale, scholars have shown that personal health seems to effect decisions to participate in politics generally (Burden et al., 2017).

As such, modern rural health care attitudes may be highly related to conditions on the ground in ways that more canonically reflect “self interest” than we have previously assumed. Instead of undermining support for health care, these theories suggest that the worse outcomes are for rural white people the more supportive of government health care rural whites will be⁴—leading to the following testable hypotheses:

- **H4:** *The worse conditions are in rural communities, the more supportive of government health insurance rural whites will be.*
- **H5:** *Conditions in rural communities will be unrelated to rural whites’ resentful feelings toward government and cities.*

3.2 Less, Not More: Rural Reactions to Poor Local Health

I begin my analyses by historically sketching the relationship between local rural health conditions and support for government health insurance. As the prior section highlights, we have theoretically competing expectations for the role of local health conditions in rural whites’ health care attitudes. Scholarship associated with the “policy feedback” school suggests that we may expect worse health conditions to be associated with increased demand for government health insurance. On the other hand, Frank (2004), Hochschild (2018), Metzl (2019) and others who have commented on rural blindness suggest that rural people reject health care *in the face of poor local conditions*. Though rejecting notions of rural blindness, Cramer (2016) similarly implies that rural people reject government, potentially when conditions are worse, due to resentment felt by rural people towards the government and perceptions about government quality and fairness. As such, the *direction* of the relationship between local health conditions and rural support for government health care is the empirical quantity of interest. Positive relationships between local health conditions and support for government health care would yield conditional support for hypothesis H4 over hypothesis H1. Conversely, showing that poor health conditions are related to decreased demand from government could either imply “rural blindness” or “rural resentment.” Possibilities I explore in the following section.

To test the directional hypotheses, I use survey data from the American National Election Study (ANES) from 1972 and 1992. Geographic information is available for ANES respondents from 1964-2000. As a result, it is possible to merge ANES survey data with local health measures from that point forward. However, historical rural health care data are extraordinarily difficult to compile. Few metrics exist and even fewer exist systematically over time. Here, I use data from the US Census on Infant Mortality Rates to measure local rural health care conditions. Infant mortality rate is measured as the number of deaths under the age of 1

⁴Despite these strong pieces of evidence, the size of the effects of these local health conditions are likely to be heavily conditioned based on the balance of group attachments of rural voters (e.g. Clinton et al. (2021); Clinton and Sances (2020); de Benedictis-Kessner and Hankinson (2019); Cramer (2016)).

per 1,000 live births in the county. This measure is available and standardized for more rural respondents over time than other health measures. Even still, this measure has limited time and geographic availability that also corresponds with sufficient number of rural respondents in the ANES—especially further back in time. As a result, I present analyses for 1972 and 1992 only to provide a sense of the historical patterns in the relationship between local health conditions and rural support for government health care. To measure support government health insurance I use ANES 7-point government insurance scale, which asks respondents to array themselves on the scale of support for only private insurance through support for a universal government health insurance program.⁵ With these data I estimate OLS regressions of the following form:

$$Y_i = \alpha InfantMortalityRate_i + X_i + e_i \quad (3.1)$$

,where Y_i represents an individual respondent’s level of support for government health insurance, $\alpha InfantMortalityRate$ is the infant mortality rate for that year in the respondent’s county, X_i is a series of demographic controls⁶, and e_i represents idiosyncratic error—results are presented in Table 3.1.

Table 3.1: Local Health Conditions and Rural Support for Government Insurance

	<i>Dependent variable:</i>	
	Government Health Insurance Scale	
	(1972)	(1992)
Infant Mortality Rate	-0.005 (0.011)	-0.003** (0.001)
Constant	0.667 (0.862)	1.445*** (0.368)
Controls	✓	✓
Observations	119	515
R ²	0.063	0.154
Adjusted R ²	0.013	0.145

Note: *p<0.1; **p<0.05; ***p<0.01

Column 1 of Table 3.1 presents the results for 1972. The results imply that a two-standard deviation increase in the 1972 infant mortality rate is associated with a roughly one-fifth category decrease (on a seven point scale) in support for government health insurance. This relationship is not statistically significant in 1972. However, this insignificance appears to be mostly driven by power issues, as only 119 rural white people who lived in communities where health data were collected were ultimately interviewed by the ANES. Supporting this claim, essentially the same empirical relationship in terms of magnitude holds in 1992 and

⁵Exact question wording presented in Appendix A1.

⁶I control for the respondents’ partisanship, age, family income, educational attainment, and gender.

is now statistically significant—again, due to the increased precision from the larger sample of 515. As with twenty years prior, rural white people in 1992 responded to worse health conditions (higher infant mortality rates) by wanting less role for the government in health insurance. The results of Column 2 of Table 3.1 imply that a two-standard deviation increase in the 1992 rural infant mortality rate is associated with a one-third category decrease (on a seven point scale) in support for government health insurance.⁷ Over this twenty-year span, rural white people living in worse health care conditions were, on average, less supportive of government insurance.

Unfortunately, the ANES stopped publicly releasing geolocation data on its survey respondents by 2000. As a result, similar analyses are not possible from 2000 forward. However, using data from the Cooperative Congressional Election Study (CCES) and with much more well-rounded and systematic rural health data, I can provide similar sketches of rural reactions to poor local health from 2012-2018. In these years, the CCES interviewed nearly 80,000 rural white respondents about their health care attitudes, while also including their geographic location. With the respondents geolocation, I merge the CCES data with a number of local public health indicators from the Robert Wood Johnson Foundation County Health Rankings data and the CDC to assess whether rural white people responded to negative local health conditions by wanting more or less government health insurance. I attempt to chose health measures that reflect commonly mentioned rural health problems, like the opioid epidemic, lives lost to related despair (Case and Deaton, 2021), and obesity as well as more general measures of health, like the percentage of people living in poor or fair health. With these data, I estimate a linear probability model of the following general form:

$$Y_i = \alpha HealthExperience_i + \beta Republican_i + \gamma Democrat_i + \eta Religiosity_i + X_i + e_i \quad (3.2)$$

, where Y_i represents an individual respondent's probability of supporting of the ACA,⁸ $\alpha HealthExperience_i$ is one of the county level measures of rural health (opioid usage increase, years of potential life lost, percentage of people living in poor or fair health, and the local obesity rate), $\beta Republican_i$ and $\gamma Democrat_i$ are indicators for Republican and Democratic partisanship measured dichotomously with leaners coded as partisans, $\eta Religiosity_i$ is how often the individual attends church, X_i is a series of demographic controls⁹, and e_i represents idiosyncratic error—yearly results are presented graphically in Figure 3.1.¹⁰ Each dot represents the parameter estimate for the “effect” of a local health experience for that year; bars represent confidence

⁷There were insufficient ANES cases to perform similar analysis after 1992. Moreover, insufficient health data prohibits similar analyses in the 1980s.

⁸In some years this question is phrased asking support for the ACA, in others support for repealing the ACA are asked. I rescale all questions to take on a value of 1 if in support of keeping the ACA and 0 if not.

⁹I control for the respondents' age, family income, educational attainment, and gender.

¹⁰Full regression analyses are in Appendix A5.

intervals in the parameter estimates.

Due to varying question wording, providing a similar analyses throughout the same period using the racial resentment battery is more difficult. Different racial animus items are used in different years, frustrating attempts at yearly analyses. However, I replicate the linear probability model above using data from 2012 and 2018. including scaled respondent answers to two of four racial resentment items from Kinder and Sanders (1996).¹¹ The results of these models are presented in the appendix and are qualitative similar to the results presented here, as the inclusion of racial resentment in the empirical models only modestly influences the relationships between local health experiences and health attitudes.

Figure 3.1: Local Health Conditions and Rural Support for the ACA

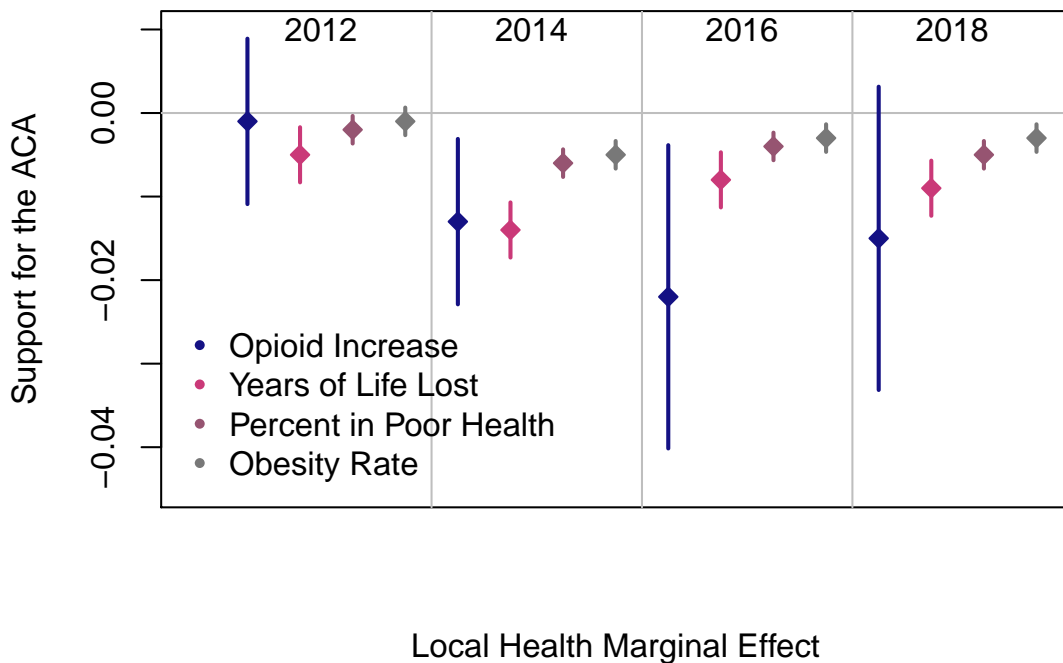


Figure 3.1 presents results temporally from left to right using four different measures of local rural health. In general, rural white people living in communities experiencing worse health outcomes between 2012 and 2018 were less supportive of the ACA than rural white peers living in communities with more favorable health environments. For example, Figure 3.1 shows rural white people living in communities experiencing opioid

¹¹I use rural white responses to the items: “Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors” and “Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class.” Other years feature one of these items alongside other racial attitude measures that do not seem to capture the same construct. As such, I rely on these two measures in these two survey years.

usage increases were less supportive of the ACA than peers experiencing opioid declines, especially in 2014 and 2016. Subbing in data on the years of potential life lost in the area as the measure of rural health obtains similar results. From 2012-2018, rural white people living in communities experiencing higher proportions of premature death and potential lives lost were less supportive of the ACA. Based on the 2014 results, Figure 3.1 implies that a two-standard deviation increase in years of life lost is associated with a predicted 5 percentage point decrease in support for the ACA. Similarly sized and statistically significant results obtain using measures of the percentage of people living in poor or fair health and the local obesity rate as measures of local health. Across nearly every specification and public health measure, rural white people respond to negative health experiences by lowering their support of the ACA.

Although data and power issues inhibit a more systemic and comparable historical analyses, the results presented here suggest that at least since the 1990s—likely since as early as the 1970s—rural white people living in communities with worse health conditions tend to want less from government and not more. Across two samples, decades apart, rural white people rejected health care by similar amounts when health care conditions in their community were comparatively worse. Twenty years later, from 2012-2018, similar rejections of government health care were observed for rural white people—this time using more systematic health and survey data. Regardless of decade or measure, rural white people seem to want less from government when things are worse.

3.3 Rural Resentment and Support for Health Care Reform

I turn next to whether the descriptive patterns uncovered above reflect “rural blindness,” or acute awareness of and resentment towards rural health care conditions—and therefore a conscious rejection of government. Hochschild (2018) and others have argued patterns like these reveal rural blindness to circumstance. However, as Cramer (2016) argues, the extant literature and survey data likely fail to accurately capture how rural people respond to their local environments based on rural cultural attachments and grievances. Specifically, by developing resentful attitudes toward government in response to these poor conditions, rural people—regardless of partisanship—may be expressing their frustrated political voice—and not blindness—by wanting less and not more from government (Cramer, 2016).

3.3.1 Rural Resentment: Concept and Measure

Rural resentment, consciousness, or identity have been used somewhat synonymously by researchers working on rural politics to refer to the underlying psychological concept undergirding this “less, not more” resentful, rural pattern (Lyons and Utych, 2021; Munis, 2020; Jacobs and Munis, 2019; Wuthnow, 2018; Cramer, 2016). Despite the varied names, the conceptual definition of “rural resentment,” the term I will use here,

has remained consistent throughout. Cramer (2016) defines rural resentment as, “an identity that includes much more than an attachment to place. It includes a sense of that decision makers routinely ignore rural places and fail to give rural communities their fair share of resources, as well as a sense that rural folks are fundamentally different from urbanites in terms of lifestyles, values, work ethic” (5-6). I attempt to capture each of these components of rural resentment in an original survey battery.

Table 3.2 lists each of the survey items that I asked rural respondents and used to create this rural resentment index. As Table 3.2 highlights, different questions are used to capture the different dimensions of Cramer’s concept. For example, rural respondents were asked, “How close do you personally feel to [people living in rural areas]?” to capture the identity components of rural resentment. To help measure perceptions of resource fairness, respondents were asked questions like, “Do you think [people living in rural areas] get more or less than [their] fair share of government resources?” For measuring rural cultural distinctiveness, respondents were asked whether they agreed with statements like, “The culture of rural America is the REAL American culture.” Each of these bundles of items are meant to tap into independent dimensions of Cramer’s rural resentment concept. With these items, I create a rural resentment index.

Figure 3.2 plots the distribution of this rural resentment index. For simplicity, I have rescaled the listed items to create an additive index. However, principal components analysis suggests that at least two dimensions of rural resentment are sufficient and present using these items.¹² One dimension appears to be based more on pride in a common rural culture and “traditional” rural ways of life (Cronbach’s $\alpha \approx 0.8$) and the other on feelings of cultural threat and perceptions of government unfairness toward rural communities (Cronbach’s $\alpha \approx 0.8$). Results are robust to using these factor scores instead of the additive index used in the main text, with each dimension exerting influence on health care attitudes. The rural resentment additive index presented here has a mean and median value of 16 and ranges from zero to twenty-four.

Figures 3.3 and 3.4 plot the bivariate relationship between rural resentment and demographic factors. Figure 3.3 demonstrates that rural resentment is negatively related to educational attainment. Rural whites with higher levels of educational attainment tend to be less rurally resentful. Similarly, Figure 3.4 shows that income is negatively related to rural resentment, with the rural poor being more resentful. These figures imply that rural whites who are the most resentful tend to be the least educated and poorest white people in their communities, reinforcing how more negative lived experiences likely contribute to levels of resentment.

Figures 3.5, 3.6, and 3.7 plot the bivariate relationships between rural resentment and the three commonly mentioned factors also known to shape of rural “blindness” and, as result, are also likely to be positively correlated with the rural resentment concept: Republican partisanship, racial attitudes, and Evangelical Christian

¹²Three dimensions performs less well with the data than two, but is sufficiently strong according to statistical tests. The three dimensions generally conform to Cramer’s three dimensions as listed in the text.

Table 3.2: Rural Resentment Battery

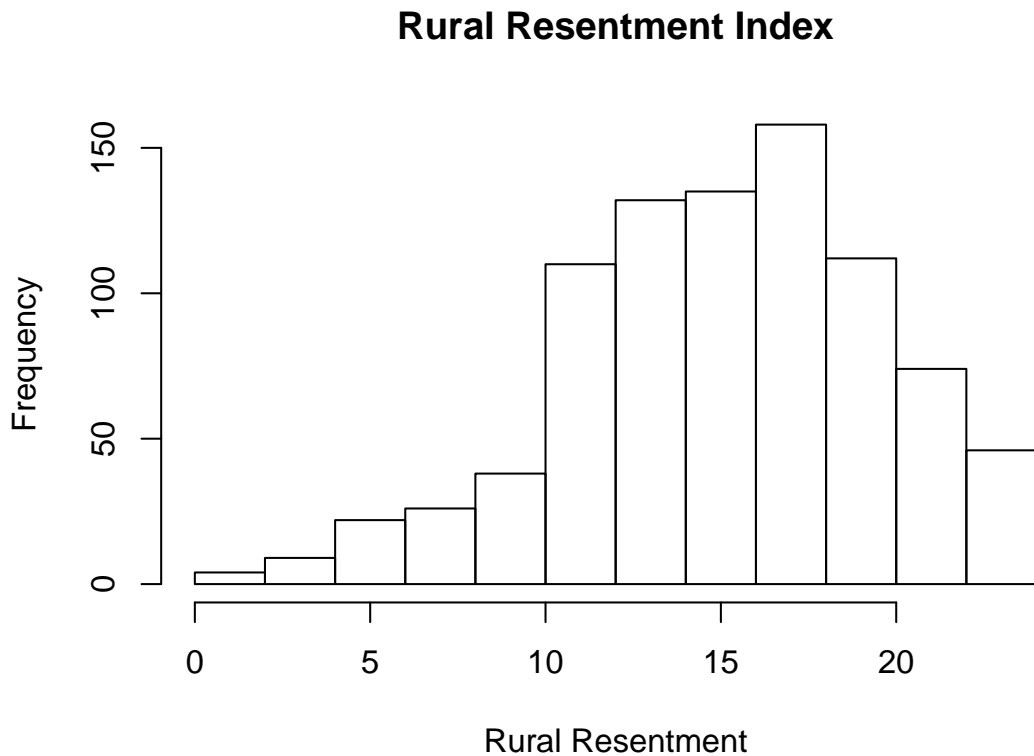
Survey Items	
Component	Question
Rural Identity	<ul style="list-style-type: none"> ● “Please indicate where you would put each group on a scale ranging from 0 to 10: <i>“People living in rural areas”</i>” ● “Please indicate where you would put each group on a scale ranging from 0 to 10: <i>“People living in big cities”</i>” ● “Regardless of where they live or what they do for a living, rural people have a lot in common.” ● “How close do you personally feel to each of the following kinds of people?”: <i>“People living in big cities”</i>” ● “How close do you personally feel to each of the following kinds of people?”: <i>“People living in rural areas”</i>”
Fair Share	<ul style="list-style-type: none"> ● “Do you think each of the following groups gets more or less than its fair share of government resources?” <i>“People living in big cities”</i>” ● “Do you think each of the following groups gets more or less than its fair share of government resources?” <i>“People living in rural areas.”</i>” ● “Decades of bad decisions by government have made it harder for rural people to work their way up in America.” ● “The rural way of life is endangered by economic decline, drugs, and rapid social change.”
Culture	<ul style="list-style-type: none"> ● “People in cities preach respect for others, but they think it is okay to make fun of people from rural areas.” ● “The culture of rural America is the REAL American culture.” ● “The media mostly portray what life is like in New York and Hollywood, not in the rest of America.” ● “The traditional American way of life is disappearing so fast that we may have to use force to save it.” ● “People in cities tend to look down on people living in communities like mine.” ● “Rural people in this country have a lot to be proud of.”

religious adherence. Rural resentment is, as expected, positively related to each of these concepts. Rural white people who are higher in rural resentment also tend to view the Republican party more positively. Moreover, rural white people who are higher in racial resentment tend to be higher in rural resentment. Similarly, rural whites who more regularly attend Christian church also tend to hold more rurally resentful attitudes. The figures demonstrate that while rural resentment is correlated with the existing concepts (e.g. the correlation between rural resentment and racial resentment is 0.49), they appear to be distinct constructs—perhaps with independent influences on rural health care attitudes.

3.4 Rural Resentment, Health Experiences, and Health Care Attitudes

To empirically examine how rural resentment influences rural health care attitudes, I draw, again, on the survey of 800 rural white people collected by YouGov in January of 2020, utilizing these rural items. With these data, I analyze the extent to which rurally resentful attitudes correlate with negative local health experiences and the extent to which these place-based considerations explain modern rural health care attitudes. To

Figure 3.2: Rural Resentment Index



measure health care support, I rely on two items collected in 2020 and another item collected from the same individuals in the recent past. In 2020, respondents were asked to array themselves on a five-point scales of whether government had a responsibility to provide health care and whether they supported Medicare-for-all (each rescaled to run from -2 to 2, with positive values being more supportive). Respondents also previously answered questions on their level of support for the ACA (measured dichotomously).

To measure partisan attachments, I code Republican and Democratic partisanship separately, with partisan-leaners included in their respective partisan camps. To measure racial attitudes, I rely on two of items the racial resentment scale (Kinder and Sanders, 1996).¹³ To measure Christian religious adherence, I rely again on “religiosity” or church attendance, a common measure of the intensity of this type of religious attachment (Layman, 2001; Margolis, 2018). To measure rural resentment, I rely on the additive index to introduced in the previous section.

Consistent with Cramer’s (2016) theorizing and hypothesis H2 and not H5, attitudes of rural resentment appear to be modestly related to poor local health conditions. For example, Figure 3.8 provides the bivariate

¹³See appendix for questions.

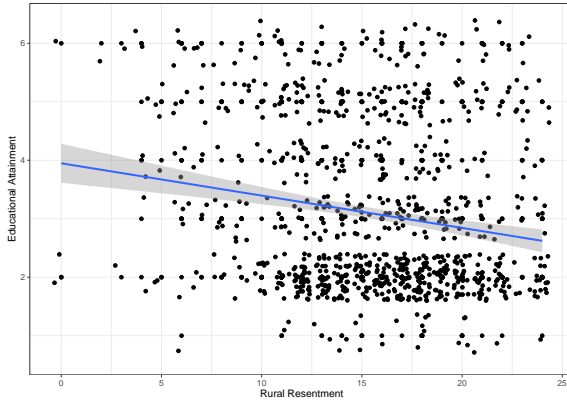


Figure 3.3: Rural Resentment and Education

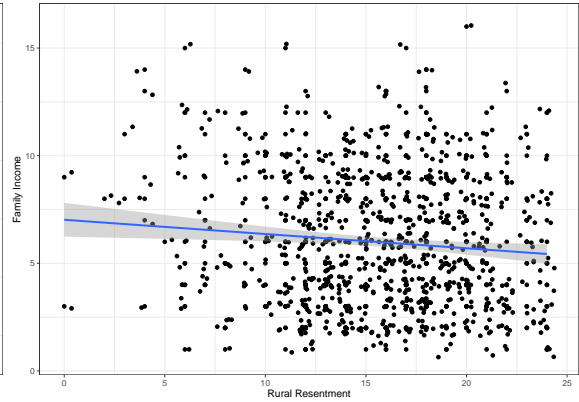


Figure 3.4: Rural Resentment and Income

relationship between the years of potential life lost as a result of poor health and health infrastructure in the respondents' county¹⁴ and the rural resentment scale. Rural whites living in less healthy communities generally hold more rurally resentful attitudes (Pearson's $r \approx 0.1$). Similarly, Figure 3.9 shows that rural whites in communities more heavily impacted by the opioid epidemic, as measured by the number of prescription opioids prescribed in the county per 100 people¹⁵, also tend to hold these more resentful attitudes (Pearson's $r \approx 0.1$). Finally, Figure 3.10 shows that white people living rural communities with higher proportions of obese people tend to have more rurally resentful attitudes (Pearson's $r \approx 0.15$). Each of these results imply that rural communities most experiencing these types of deaths of despair and more bleak health conditions (e.g. Case and Deaton (2021)) are where rural whites are developing the most resentful attitudes toward cities and government.

To examine the extent to which the development of these rurally resentful attitudes predicts support for government health care reform, I begin by plotting the bivariate relationship between the rural resentment index and support for the ACA and Medicare-for-All in Figures 3.11 and 3.12. Support for the ACA is measured dichotomously, whereas support for Medicare-for-All is measured on a -2-to-2 scale. The points have been jittered in each plot to provide more aesthetically pleasing and statistically interpretable visualizations. Each figure shows that rural resentment is strongly and negatively related to support for these government health insurance plans. Rurally resentful whites tend live in communities with worse health conditions and tend to be less supportive of government health insurance. These relationships, however, are unconditional and therefore do not speak to the independent influence of rural resentment net of the symbolic considerations that have historically dominated rural whites' health care attitudes. To better address this, I estimate OLS models that take on the following general form:

¹⁴Data from Robert Wood Johnson County Health Rankings data.

¹⁵Data from the CDC.

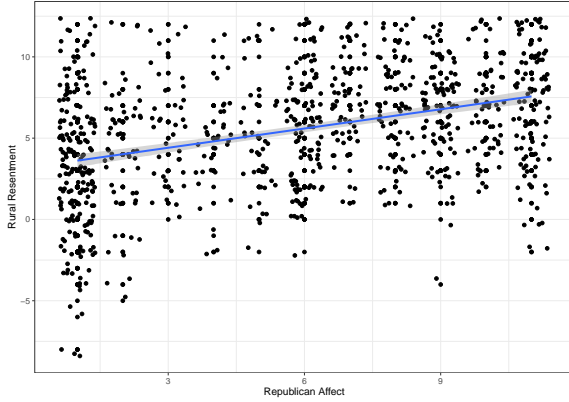


Figure 3.5: Rural Resentment and GOP Affect

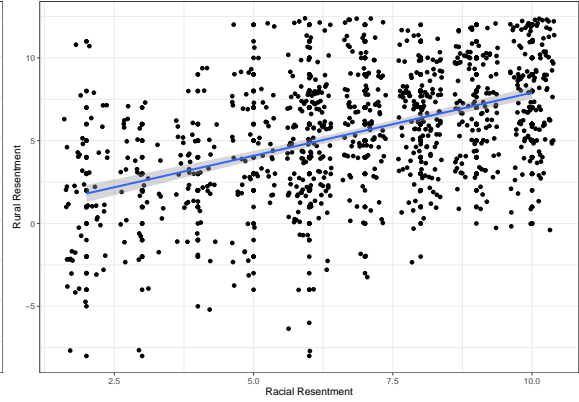


Figure 3.6: Rural and Racial Resentment

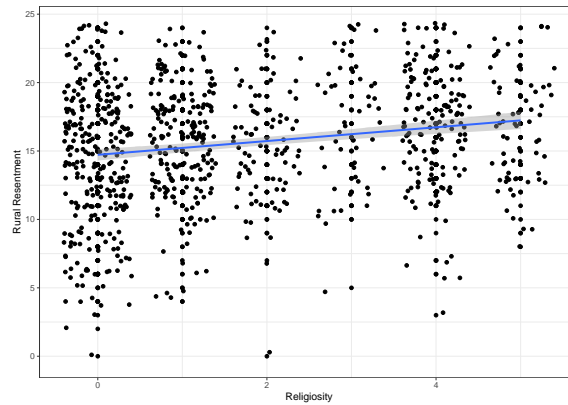


Figure 3.7: Rural Resentment and “Religiosity”

$$Y_i = \alpha RuralResentment_i + \beta Republican_i + \gamma Democrat_i + \theta RacialResentment_i + \eta Religiosity_i + X_i + e_i \quad (3.3)$$

,where Y_i represents an individual respondent’s health care attitude, $\alpha RuralResentment_i$ is the rural resentment scale introduced above, $\beta Republican_i$ and $\gamma Democrat_i$ are indicators for Republican and Democratic partisanship measured dichotomously with leaners coded as partisans, $\theta RacialResentment_i$ are scaled respondent answers to two of four racial resentment items, $\eta Religiosity_i$ is a measure of the intensity of Christian church adherence, X_i is a series of demographic controls¹⁶, and e_i represents idiosyncratic error—results are presented in Table 3.3.

Building on Cramer (2016) and in support of hypothesis H3, Table 3.3 demonstrates that rural resentment shapes rural whites’ support for government health insurance. Across two of the three models, rural resentment undermines rural white support for government health insurance net of partisan and racial considerations. Rural whites who hold more resentful attitudes toward cities and governments are less likely to

¹⁶I control for the respondents’ age, family income, educational attainment, and gender.

Rural Resentment and Local Health Conditions

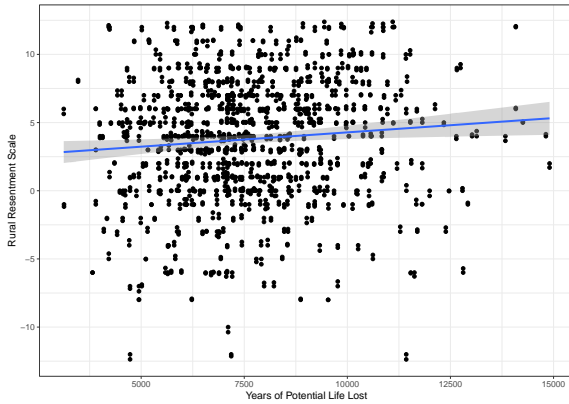


Figure 3.8: Years of Life Lost

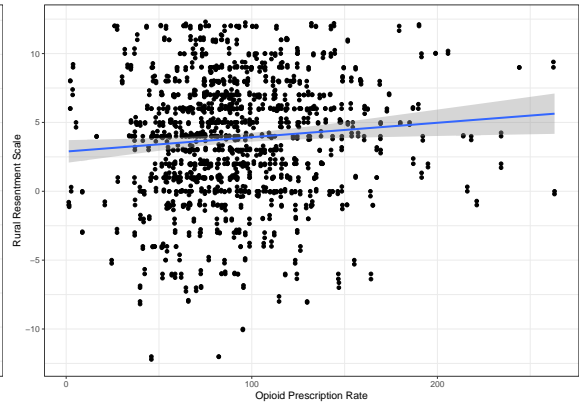


Figure 3.9: Opioid Prescription Rate

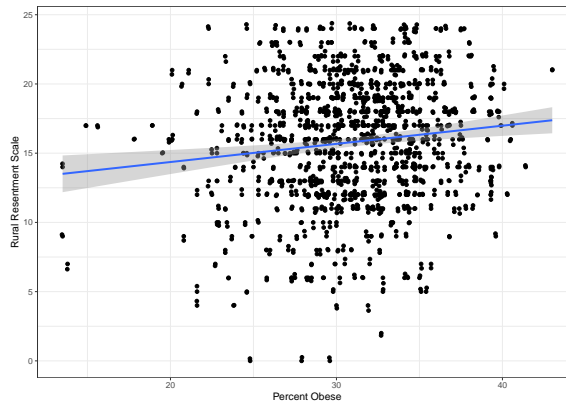


Figure 3.10: Obesity Rate

believe that the federal government has the responsibility to provide health care, are less supportive of the Medicare-for-all proposal, and have less positive evaluations of the Affordable Care Act. The results from Column 2 suggest that a two-standard deviation increase in the rural resentment scale is associated with a decline in support for Medicare-for-all by roughly half a point on the five point scale. Rural resentment appears to be nearly as an important influence on modern rural whites' health care attitudes as racial attitudes and about half as influential as partisan attachments.

Moreover, as Table 3.4 demonstrates, rural resentment—and racial resentment—undermines support for government health care for rural Democrats and Republicans alike. Columns 1 and 3 of Table 3.4 present the same analyses as Table 3.3 for just rural white Democrats on support for ACA and Medicare-for-all. Columns 2 and 4 report the same for rural white Republicans. As can be seen, rural resentment influences rural Democrats and Republicans in similar ways and by similar amounts, suggesting, a la' Cramer (2016), that rural cultural grievances predispose most rural whites against government. Rather than being particularly

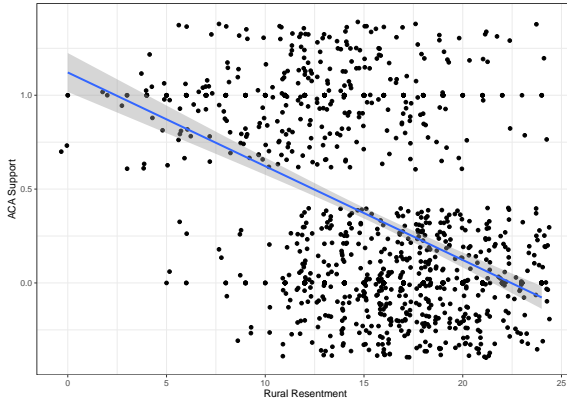


Figure 3.11: Rural Resentment and ACA Support

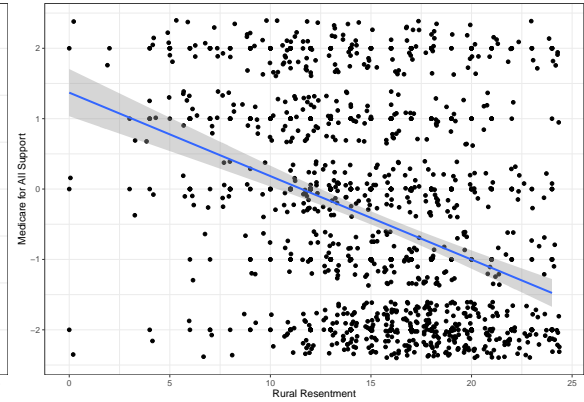


Figure 3.12: Rural and M4A Support

Table 3.3: Rural Resentment and Support for Government Health Insurance

	<i>Dependent Variable:</i>		
	Fed HC Responsibility	M4A	ACA
	(1)	(2)	(3)
Rural Resentment	-0.014 (0.010)	-0.036*** (0.012)	-0.014*** (0.003)
Racial Resentment	-0.110*** (0.020)	-0.126*** (0.023)	-0.032*** (0.006)
Religiosity	-0.080*** (0.024)	-0.103*** (0.027)	-0.016** (0.008)
Republican	-0.225** (0.110)	-0.396*** (0.125)	-0.113*** (0.036)
Democrat	0.761*** (0.124)	0.792*** (0.140)	0.457*** (0.040)
Constant	1.915*** (0.265)	2.154*** (0.300)	0.731*** (0.086)
Controls	✓	✓	✓
Observations	740	740	713
R ²	0.337	0.394	0.533
Adjusted R ²	0.328	0.387	0.527

Note: *p<0.1; **p<0.05; ***p<0.01

blind to their plight, rural people of many stripes seem to consciously reject government as the solution to their health care problems.

Tables 3.3 and 3.4 also show that partisanship and racial attitudes are fundamental to understanding rural whites' health care attitudes. In every model, racial resentment and partisanship substantially predict rural whites' health care attitudes. From Table 3.3, Republican and Democratic rural whites respond roughly one full category apart on each of the health care support items, with rural Republicans consistently being less supportive of government health insurance programs. Consistent with Metzler's (2019) qualitative work,

Table 3.4: Rural Resentment and Health Care Support Across the Party Divide

	<i>Dependent Variable:</i>			
	ACA Support		M4A Support	
	(Dem)	(GOP)	(Dem)	(GOP)
Rural Resentment	-0.016*** (0.006)	-0.015*** (0.004)	-0.022 (0.020)	-0.029* (0.016)
Racial Resentment	-0.034*** (0.010)	-0.025*** (0.009)	-0.099*** (0.035)	-0.119*** (0.034)
Religiosity	-0.037** (0.018)	-0.006 (0.008)	-0.105* (0.061)	-0.097*** (0.031)
Age	0.002 (0.002)	-0.002** (0.001)	-0.017*** (0.005)	-0.011*** (0.004)
Income	0.007 (0.008)	-0.006 (0.005)	-0.052** (0.025)	-0.048** (0.021)
Education	0.005 (0.016)	-0.008 (0.011)	0.027 (0.056)	-0.115*** (0.043)
Gender	-0.022 (0.046)	0.023 (0.029)	-0.019 (0.154)	0.272** (0.115)
Constant	1.086*** (0.145)	0.760*** (0.121)	2.825*** (0.471)	1.675*** (0.486)
Controls	✓	✓	✓	✓
Observations	232	372	244	382
R ²	0.172	0.095	0.163	0.135
Adjusted R ²	0.146	0.078	0.138	0.119

Note: *p<0.1; **p<0.05; ***p<0.01

racially resentful rural whites are also less supportive of government health insurance. Across each health care dependent variables, rural whites with more racially resentful attitudes were less likely to support government health insurance programs. Table 3.4 shows that racial attitudes also influence both rural Republicans and Democrats. Less significantly and consistently, religious attitudes are also related to modest depressed support for government health insurance, with more intense Christian adherents being less supportive of government health insurance, suggesting that abortion attitudes, etc. may be less influential than Frank (2004) suggests. Moreover, and consistent with Cramer (2016), these findings demonstrate that these sources of rural “blindness” identified previously are not the only game in town. Rural whites of varying symbolic loyalties, who live in areas with worse health care conditions, tend to hold more resentful attitudes towards government and these attitudes, in turn, undermine rural support for government health care for many rural white people.

3.4.1 Are the Rural Poor Also Resentful?

While the prior results have show consistent evidence of rural white people responding to negative health conditions by wanting less from government—in part due to the resentful feelings rural people feel towards

government as a result of their plight—, these findings only speak to on average trends and not whether the poorest and most vulnerable white respondents similarly reject health care. To explore these income differences, I subset the YouGov survey of 800 rural whites to the respondents in the bottom and upper tiers of the income distribution and replicate the analyses from the previous section. These less well-off vs. more well-off comparisons make clearer whether the on average findings also hold for the rural suffering.

To provide these comparisons, Table 3.5 presents replications of Table 3.3’s models of rural support for the ACA and Medicare-for-All for the less well-off and upper income subsamples of rural white respondents. Columns 1 and 3, labelled “Poor,” include rural white respondents from the bottom third of the income distribution in the YouGov rural survey (or \$30-39,000 or less); Columns 2 and 4, labelled “Rich”, include respondents making \$100,000 or more. For both measures of health care support, it is the poorest rural white people who seem to have their health care attitudes most negatively influenced by rural resentment, both substantively and in terms of statistical significance. The results from Column 1 imply that a two-standard deviation increase in rural resentment is associated with nearly half a category decrease in support for Medicare-for-All among the poorest rural white people, a substantively large effect. Parameter estimates for the wealthy are half as large in terms of magnitude, further suggesting it the poorest rural whites who resentfully reject government.

Table 3.5: Rural Resentment Across the Income Divide

	<i>Dependent variable:</i>			
	Medicare-4-All		ACA	
	(Poor)	(Rich)	(Poor)	(Rich)
Rural Resentment	-0.050** (0.020)	-0.021 (0.028)	-0.012** (0.006)	-0.013* (0.007)
Racial Resentment	-0.153*** (0.040)	-0.120** (0.053)	-0.025** (0.012)	-0.047*** (0.013)
Religiosity	-0.067 (0.048)	-0.004 (0.064)	0.0004 (0.014)	0.005 (0.015)
Republican	-0.386* (0.211)	-0.878** (0.437)	-0.133** (0.064)	0.038 (0.104)
Democrat	0.468** (0.236)	0.493 (0.489)	0.422*** (0.070)	0.659*** (0.120)
Constant	2.608*** (0.577)	1.907* (1.114)	0.492*** (0.171)	0.767** (0.329)
Controls	✓	✓	✓	✓
Observations	276	104	268	97
R ²	0.317	0.592	0.430	0.804
Adjusted R ²	0.294	0.553	0.410	0.783

Note: *p<0.1; **p<0.05; ***p<0.01

Moreover, racial resentment and partisanship have roughly similarly sized affects on support for govern-

ment health insurance among less well-off ruralites as they have had in prior analyses on the full sample—if not larger. Republicans and racially resentful whites are considerably less supportive of government health insurance policies than their non-Republican and less racist rural white peers. Each of these symbolic attitudes and group attachments appears to exert at least as large of an influence on poorer, rural whites as on more well-off rural whites, with coefficients for rural resentment, racial resentment, and partisanship being nearly equal to the parameter estimates from the full sample. Interestingly, only the religious findings do not hold for the poorer sample. Somewhat contradicting Frank (2004), these religious objects objections to government health care seem to come from middle and upper income rural white people, not the poor or needy.

3.5 Discussion and Conclusion

In this chapter, I have explored the “Great Paradox” of why rural white people reject government health care even though they are personally or locally experiencing hardship. While political observers have lamented that rural whites have become increasingly numb to their own circumstances and reject government health care on the blind whims of symbolic politics (Frank, 2004; Hochschild, 2018; Metzl, 2019), I show that these conventional narratives are far too simplistic. Despite assertions that partisan, racial, or religious/culture attitudes are new and blinding influences on rural white people’s public policy attitudes, I show that even if blind, the historical relationship between rural health conditions and support for government insurance has been negative for the better part of at least forty years. Even conceding that these symbolic attachments are perhaps new or are just stronger influences now than in the past, these findings suggest that rural white people have systematically and historically responded to their negative health environments by wanting less government and not more, net of these other considerations.

Building on this stylized pattern, I further explored why rural people generally respond to negative health conditions by wanting less, instead of more government assistance. Drawing on Cramer (2016) and using an original survey battery to measure her rural resentment concept, I show that rural white people tend to respond to negative local conditions by adopting more resentful attitudes toward cities and government. These resentful attitudes, in turn, undermine rural support for government health care. Rural people blame the government for their health care environment and respond by wanting less government.

These findings have important implications for multiple political science literatures. This scholarship adds to growing work on the politics of rural America and white working class voters. Building on previous scholarship on rural identity (Lyons and Utych, 2021; Munis, 2020; Jacobs and Munis, 2019; Cramer, 2016), this chapter demonstrates that this bundle of resentful attitudes also has important influences on rural public policy attitudes. Moreover, much like Baccini and Weymouth (2021), who find that white people have re-

cently responded to manufacturing layoffs by supporting the Republican Party and developing more racially resentful attitudes, I highlight a similar pattern in rural white responses to bad health outcomes. Rural white people experiencing negative health conditions tend to develop resentful attitudes toward government (and other social groups) and respond by wanting less government all together.

In terms of political accountability, these findings suggest that urban and rural differences in how retrospective evaluations are translated into political attitudes and voting behavior may be important and understudied. Rural white people have seemingly bought the Reagan quip that, “the government is the problem.” Rural voters are predisposed to want less from government, especially after it fails to deliver on service provision. Moreover, Republican elites, who represent most of rural America, have strong preferences against using the government to improve rural health care and have become rapidly anti-government in their own right (Hacker and Pierson, 2020). As a result, these resentful anti-government feelings on the part of rural voters contribute to vicious cycle, where Republican elites can win electoral support in rural places simply through their anti-government appeals, even when *they are the government* or are more responsible for the negative conditions. Despite what some have suggested (i.e. Hacker and Pierson (2020)), no distractions seem to be necessary to build rural resentment toward government. By calling attention to the negative forces in rural peoples’ lives, Republican elites may benefit, especially over time, even from their own destruction and disruption.

Accordingly, more work is needed to better understand how rural and working class white people respond to anti-government messaging and the extent to which calling attention to social problems undermines white support for government solutions generally. Along these lines, more research is needed on the effects of cumulative bad experiences with government on support for social assistance. Moreover, while the analyses here were informative, they fall short in terms of causally identifying the effects of health conditions on health care attitudes. As such, more experimental and quasi-experimental methods are needed to more clearly understand how rural white people, or white people in general, respond to their environments. Are white people now generally more supportive of the Republican Party when experiencing hardship (i.e. (Baccini and Weymouth, 2021))? Do whites, and especially rural whites, become more racially resentful in response to these kinds of negative forces? Moreover, additional research is needed on the origins and influence of rural resentment. While local health conditions relate to resentful attitudes, they do not explain the vast majority in variation in rural resentment. What are the other societal forces that give us to rural resentment? Finally, considerably more research can be done to examine the other policy domains and political outcomes that rural resentment shapes.

CHAPTER 4

The Politics of Pain: Medicaid Expansion, the ACA, and the Opioid Epidemic

“If fat was the new skinny, pills were the new coal.” - (Macy, 2018, p. 18).

Unlike most public health threats, which tend to originate in cities, the opioid epidemic in America began, exploded, and continues to most forcefully ravage rural communities—especially ones in Appalachia (Macy, 2018; Case and Deaton, 2021). Indeed, the poorest and most economically stagnant parts of the rural US are the ones that have been most decimated by the spread of opioid addiction and drug-related overdoses (Case and Deaton, 2021). Describing these recent patterns in somewhat of a contrast to the public health threats that plagued rural America during Lyndon Johnson’s War on Poverty, journalist Beth Macy quips, “Whereas half [of Appalachia] lived in poverty in 1964 and hunger abounded, it now [holds] national records for obesity, disability rates, and [illicit opioid sales]. If fat was the new skinny, pills were the new coal” (Macy, 2018, p. 18).¹ Much as Lyndon Johnson’s Great Society government programs were to credit for improved rural health care in the 1960s, government *inaction* and the lack of opioid policy deserves as much “credit” for today’s opioid problems.

The actions of corrupt doctors, well-funded and highly-contributing pharmaceutical companies and associated lobbying firms, and hamstrung or complicit federal officials allowed the opioid epidemic to develop and eventually envelop much of the US (Macy, 2018; Case and Deaton, 2021; Gest, 2016; Quinones, 2015). Between 1995 and 2010, multiple state and federal investigations into the causes of epidemic were launched and shuttered without significant policy changes, largely due to the influence of powerful pharmaceutical companies on government decision making (Macy, 2018; Quinones, 2015; Foreman, 2014). During the 2016 election, many political observers suggested that these severe opioid experiences and anger at the government’s failings at dealing with the epidemic became electorally relevant and may have caused voters to support Donald Trump (Garcia, 2017; Newburger, 2018). Despite these compelling journalistic narratives from 2016, little systematic, quantitative evidence exists to support them.

How do voters respond to and hold politicians accountable for these types of health experiences and health policy in general? While scholars have long demonstrated that the creation of large policies and social programs can create more politically engaged citizens (Schattschneider, 1935), considerably less evidence demonstrates that voters are actually able to recognize policy changes, understand policy effects, and update their policy attitudes and candidate preferences in ways that are reflective of lived experiences or the opioid

¹Emphasis added by author. Wording slightly changed for clarity.

anecdotes mentioned above (Campbell, 2012). Existing explanations for the lack of evidence of this type of directional policy feedback² have mostly focused on the roles of voter partisanship and the structure of the policy or program in making policy feedback more or less likely.

I argue that the institution of federalism and subsequent state-variation in the effects of federal policy are also important and understudied contributors to the patterns of directional policy feedback that we observe in the US. Federalism creates important barriers for citizens' abilities to engage in directional policy feedback by blurring which actors are responsible for the level of policy received and by creating geographic variation in the effects of federal policy. In addition to creating their own programs and policies, state and local governments affect the design, implementation, and eligibility conditions for many federal programs, granting partisan state government officials significant power to undermine federal policies associated with the opposition party (Grumbach, 2018; Herd and Moynihan, 2018). These rejections of policy may cause voters to develop negative impressions of the policy and the elites defending it. Whereas recipients of the programs, who live in more policy-supportive states, may be more likely to engage in the normal policy feedback process, with increased support for the policy and the elites that support it because they are more likely to experience positive policy effects and have a more positive experience with the actual policy regime.

To evaluate how these dynamics influenced how voters responded to the opioid epidemic, I exploit a unique feature in the federal government's response to the opioid epidemic via the Affordable Care Act (ACA) and subsequent state expansions of Medicaid. Federal and state governments allowed the opioid epidemic to continue essentially unabated until the creation of the ACA in 2010 (Foreman, 2014; Quinones, 2015; Macy, 2018). Although not advertised in this manner, the ACA was the first major federal policy that included several measures to combat the opioid epidemic. For example, in addition to the ACA's primary health insurance coverage extension goals—which themselves helped reduce the epidemic's severity by providing improved access to health care—the ACA allowed for expanded access to vital opioid overdose reversing medications (Abraham et al., 2017; Davis, 2017a; Frank and Fry, 2019). However, many of these benefits were tied to whether a state decided to expand Medicaid under the ACA. Following the *National Federation of Independent Business v. Sebelius* (2012) Supreme Court decision, states were given essentially complete power to opt-in or out of the Medicaid expansion provisions of the ACA. In many states with Republican governors and GOP-controlled state legislatures, governments opted out of Medicaid expansion and bypassed many of the epidemic-fighting components of the ACA. As a result, not all voters experienced the positive policy effects of the ACA and Medicaid expansion on the opioid epidemic.

This court ruling and policy implementation quirk allow me to exploit differences across the borders of

²By directional policy feedback, which is not an official term from the literature, I am referring to the updating of attitudes and voting behavior to support the policy or program, as well as support the party or candidates who support the policy/program. For example, increasing one's support of the Republican Party in response to benefiting from a policy the party created.

states that expanded Medicaid as part of the ACA and those that did not to better understand how these health policy effects translate into political action. These cross-border differences provide for multiple empirically rigorous and policy-relevant comparisons. First, counties along the borders of expansion and non-expansion states arguably vary only randomly in observable and unobservable characteristics. As a result, these border comparisons provide a reliable estimate of the causal effect of policy change on political behavior without the typical worries of confounding factors. Second, because the ACA included provisions to curb the growing opioid problem, these border discontinuities should also provide substantively important variation in the trajectory of the opioid epidemic, allowing for deeper understandings of the impact of changing opioid conditions of so-called “policy effects.”

Using this geographic regression discontinuity design (GDD), I find that relative to counties in non-expansion states, expansion counties on average became more Democratic from 2012 to 2016. However, I find that this relationship is heavily moderated by how severe the opioid epidemic was in a given area. Empirical estimates suggest that the positive effects of Medicaid expansion on change in Democratic vote share completely attenuate to zero when a community’s opioid severity reaches roughly the median level of severity in 2016. I also find that the Democratic party’s share of the vote similarly decreased as the severity of the opioid epidemic increased in non-expansion counties—though voters in expansion states were slightly more likely to credit (blame) the Democratic Party for less (more) severe opioid epidemic conditions.

These results refine our understanding of policy feedback and electoral accountability in a federal system. Although voters receiving full policy benefits in expansion states rewarded the party who provided the policy and reacted predictably to the subsequent positive policy effects, the institution of federalism affected where this type of positive policy feedback occurred. Variation in Medicaid expansion caused voters in non-expansion states to engage in arguably self-defeating policy feedback where the party of state the officials who obstructed the full implementation of the policy actually benefited electorally from the comparatively worsening health conditions and lack of policy.

This type of self-defeating policy feedback has important implications for both democracy and the state of health care. By undermining the implementation of a policy favored by the incumbent president, state-level politicians of the opposition party worsened the objective health conditions of their own constituents. Voters responded by blaming the incumbent president’s party in the next election. Theories of democracy and electoral accountability often assume that politicians are motivated to perform well in office as part of their desires to seek re-election. However, these results suggest that in certain conditions—and perhaps especially in today’s hyper-partisan and competitive electoral environment—opposition partisans of the president (especially at the state-level) may be electorally incentivized to undermine public goods, potentially harming their own constituents (Sances, 2017; Lee, 2016).

On the health care front, these findings have particularly grave consequences. Following the 2016 election the state of health care provision and the opioid epidemic worsened in many non-expansion states, with many rural hospitals closing as a result of states' decisions not to expand Medicaid (Kelman, 2019)—further exacerbating the effects of the opioid epidemic and costing the lives of many. As a result, understanding how voters are likely to respond to these worsening health conditions is of continued practical importance.

4.1 Policy Feedback, Policy Effects, and Federalism

Scholars long have demonstrated that the public seems to increase its political engagement in response to major changes in public policy (Schattschneider, 1935; Campbell, 2002). When the federal government creates a new social program, program participants tend to become more politically interested and knowledgeable (participatory feedback). Across a variety of policy domains and social programs, that “policy makes new politics” has become near canon. Theories of policy feedback also predict that participants' self-interest in preserving the social program can affect political attitudes and partisan loyalties (directional feedback). Despite clear theoretical expectations and extensive empirical studies, the literature on policy feedback is limited in a number of important respects.

First, the policy feedback literature has insufficiently incorporated how institutions like federalism may alter patterns of policy feedback.³ This oversight has occurred despite the fact that states play increasingly important roles in policymaking and in shaping the ways in which federal programs are experienced in the states (Grumbach, 2018; Herd and Moynihan, 2018). Second, many existing accounts of policy feedback have focused on participatory effects and have mostly failed to find directional feedback effects (Campbell, 2012). As a result, we are left without much evidence that major public policy changes can induce citizens to update their policy preferences and voting behavior to reflect their positive experiences with a public policy.

Third, many studies of policy feedback have yet to fully appreciate how the effectiveness of policy implementation may alter patterns of policy feedback, especially when some component of the policy's effectiveness becomes salient. In other words, while policy has been of central focus in the feedback literature, the impact of resulting policy effects or objective conditions has remained largely under-investigated. This oversight has occurred despite the fact that we know from recent work that changing local conditions can affect presidential voting and political attitudes (de Benedictis-Kessner and Warshaw, 2020; Lenz and Healy, 2019; Ritchie and You, 2019), especially when these local conditions have been contextualized and made salient by the media or other political actors (Mutz, 1994; Hopkins, 2010). Moreover, scholars have shown that the nature and generosity of a program are deeply affected by federalism and the choices of partisan legislative and executive officials (Michener, 2018; Campbell, 2014; Gray et al., 2013).

³Michener (2018) is an important exception to this rule.

I argue that the insufficient attention to federalism-induced differences in policy and resulting variation in the success or effectiveness of a policy can help explain the limited evidence of directional policy feedback. Prior work suggests that the design and implementation of federal policies can affect citizens' abilities to incorporate their experiences with a program into their political judgments (Soss and Schram, 2007; Mettler, 2011; Morgan and Campbell, 2011). The federal government often allows state governments to have a significant amount of discretion over how programs function (e.g., who meets eligibility standards within a state, how generous benefits are). As a result, state actions in policy implementation can produce significant geographic variation in policy effects and therefore policy feedback (Michener, 2018).

Scholars have begun to account for state political elites' role in this process in the more polarized era of American politics, showing that, in a variety of policy domains, state officials have an asymmetric advantage that can be used to undermine the policymaking objectives of opposition federal partisans (Herd and Moynihan, 2018). However, less is known about how voters respond in these situations. Michener's (2018) work is the first to systematically interrogate whether federalism has an important influence on policy feedback. While important, Michener's (2018) discussion focuses exclusively on dichotomous instances of political participation rather than the kinds of directional policy feedback of interest here. To further explore how federalism can impact directional policy feedback for federal policies, I turn to a generic health care policy example.

Consider a federal health care program launched by the Democratic Party in which states have the possibility to support or oppose the implementation of the health program. In effect, this decision affects whether voters in particular states receive more or less of the health policy. In states that choose to fully implement (or even improve upon) the health care program, the classical policy feedback literature (Campbell, 2002, 2012) predicts that voters in those states will likely increase their support for the policy, increase their political participation in response to the policy, and ultimately credit the federal Democratic Party for the policy (H1).

Moreover, theories of retrospective voting (Fiorina, 1981) suggest that voters ought to respond to the positive effects of the policy as well. Indeed, scholars have argued that politicians regularly design policy believing that the effects of their policies or the resulting objective conditions following policymaking will be more electorally relevant than the policymaking process itself (Arnold, 1990). If voters experience more favorable health conditions following the policy adoption, especially if those health conditions are made salient and politically relevant by elites or the media (Hopkins, 2010), voters are again likely to credit the federal incumbent Democratic party (H2). As a result, we would expect better (worse) health conditions to lead to increased (decreased) support for the Democratic and potentially for these resulting health conditions to moderate the direct effects of policy adoption.

Both of these theoretical traditions lead to clear predictions for policy-supportive states:

- **H1:** *Voters in policy-supporting (opposing) states will be more (less) likely to support the Democratic Party.*
- **H2:** *Voters in areas with better (worse) health conditions in policy-supporting states will be more (less) likely to support the Democratic Party.*

Although we clearly expect less support for the federal Democratic Party in policy-opposing states relative to supportive states, the electoral predictions for the influence of what I have called “policy effects” are less clear. As a result of not implementing the policy, health conditions are likely to have worsened generally and especially relative to the policy-supporting states that are receiving full policy benefits. One possibility is that voters correctly recognize the role of state government Republicans in the non-implementation of the policy as well as the resulting declining health care conditions. This type of theorizing has some support in the literature, with voters seemingly recognizing who is responsible for specific policy domains and decisions at the state level, especially if those decisions are made salient to voters (Stein, 1990; Arceneaux, 2006). From this prospective, because voters are aware of their state’s decision to forgo these potential benefits, we might expect them to either blame the party that controls their state government –in this example Republicans– for their worsening health conditions or they may not vote along those lines at all, absolving the federal Democratic party of responsibility for worsening conditions. As a result, we would either expect to see no relationship between the resulting health conditions or perhaps even a *negative* relationship, where worse conditions lead to greater support for the Democratic Party (H3a) if voters blamed local Republicans for worsening conditions.

- **H3(a):** *Voters in areas with worse (better) health conditions in policy-opposing states will be unaffected electorally or slightly more (less) likely to support the Democratic Party*

Alternatively, we may expect voters in policy-opposing states to respond to their changing objective conditions in the same way as voters in the policy-supportive ones. Voters often struggle to connect policies and policy effects to specific politicians. Difficulties in blame or credit attribution even cause voters to fault national politicians and especially the president for events outside of their or anyone’s control (Achen and Bartels, 2016; Healy and Malhotra, 2010). This attribution issue can manifest itself in voters evaluating state and local politicians based on their evaluations of the president (Rogers, 2017), sometimes going as far as blaming the president for policy changes that the voters themselves enact via direct democracy (Sances, 2017). When voters are unlikely to know that state actors are responsible for the success or failure of a federal program in their area or are unaware that their state government has made the health conditions around them worse relative to peer communities, they are likely to simply blame the incumbent president’s

party. Along these lines, voters indeed often understand very little about how their state governments function and what they do (Carpini and Keeter, 1996). As a result, there is also ample reason to expect to see the federal Democratic Party to perform better (worse) in places where health conditions improved (worsened) in non-implementation states as well, even though local Republican officials were largely responsible for the improved (worsened) conditions (H3b).

- **H3(b):** *Voters in areas with better (worse) health conditions in policy-opposing states will be more (less) likely to support the Democratic Party.*

All told, we are left with competing expectations for the differences in voting behavior between policy-supporting and policy-opposing states. While policy-supporting states clearly ought to be more supportive of the federal Democratic party relative to policy-opposing ones (H1), the possible political effects of the resulting disparities in health conditions are numerous. We might expect voters to credit (blame) the Democratic Party for improved (worsened) conditions regardless of the policy decisions of the state government (H2 and H3b). However, voters in policy-opposing states may also recognize that state officials have impacted their policy experiences and, as result, increase their support of the Democratic Party, either to show support or demand for the policy or because they blame the Republican Party for their worsening conditions (H3a). I test these hypotheses on the case of the opioid epidemic under the ACA.

4.1.1 The ACA, the Opioid Epidemic, and the Politics of Pain

The ACA was designed to simultaneously extend insurance coverage to more Americans and cut health care costs. One method of achieving these goals was to expand Medicaid eligibility to individuals making 138 percent of the federal poverty line and below. However, as a result of the *National Federation of Independent Business v. Sebelius* (2012) Supreme Court decision, state governments had complete discretion over whether or not Medicaid eligibility, a key component of the ACA, would be expanded within their state.

While state-level variation in Medicaid and universal coverage practices existed prior to the ACA as a result of federalism (Michener, 2018; Campbell, 2014; Gray et al., 2013), the *National Federation of Independent Business v. Sebelius* (2012) decision further exacerbated these differences and created new ones. The *Sebelius* decision allowed state government officials who were opposed to the ACA the opportunity to chose to undermine the ACA's effectiveness by forgoing Medicaid expansion. As a result, Herd and Moynihan (2018) describe the ACA as a perfect example of how federalism, "creates opportunities for different levels of government to work at cross-purposes" (96). In this regard, many Republican officials fought the full implementation of the ACA for fear of the pro-Democratic political effects of the policy being popular and widely used (Cassidy, 2017).

As Figure 4.1 demonstrates, the *Sebelius* decision created significant variation across the country in experiences with Medicaid expansion, and, as a result, the many positive policy effects of the ACA.⁴ In Figure 4.1, which provides the Medicaid expansion status of all states, lighter colored states are states that expanded Medicaid as of 2015, the darker blue states had not. Figure 4.2 provides the same plot for states that share a geographic border with another state that has a different Medicaid expansion status—the states that will be included in my primary analyses. To highlight the differences between the samples, we can see that both Kentucky and Ohio had expanded Medicaid as of 2015. However, as Figure 4.2 shows, only Kentucky shares a border with non-expansion states (Tennessee, Missouri, and Virginia).⁵

As can be seen in Figure 4.1 nearly all Democratic-controlled states (especially in the Northeast and West) chose to expand Medicaid, some of which (like Massachusetts) had equivalent or more universal policies (like Vermont) in place prior to the 2014 onset of many of the ACA's provisions (Gray et al., 2013). However, the Medicaid expansion status of Republican and mixed-control states varied considerably. Battleground states with Republican governors, like Ohio and Michigan, expanded Medicaid quickly, while the battlegrounds of Wisconsin and Florida did not. Even some deeply Republican states, like Indiana and Arizona (at that time), choose to expand Medicaid.⁶

In addition to its primary insurance coverage and health care cost goals, the ACA also included less-known provisions for fighting the growing opioid epidemic. Many of these provisions were specifically tied to a state's Medicaid expansion decision. For example, via Medicaid expansion, the ACA helped expand access to substance abuse disorder treatments, increased use of naloxone (a fast-acting drug that reverses the effects of opioid overdoses and can be used to promote responsible opioid use), provided new enforcement emphasis on over-prescribers, and increased the availability of affordable health insurance that allowed citizens to pursue alternatives to opioids, black market pain killers, and heroin (Abraham et al., 2017; Davis, 2017a; Frank and Fry, 2019). As a result, whether or not a state expanded Medicaid under the ACA had important impacts on the trajectory of the opioid epidemic across the country.

I provide graphical evidence in support of these previous findings in Figures 4.3 and 4.4. Here, we see that opioid prescription rates—measured as the number of opioid prescriptions per 100 people in a county—began declining on average across the country in 2014 when the major components of the ACA had taken effect and following the *Sebelius* decision. Some of this national decline is no doubt driven by states passing opioid-fighting policies independently of the ACA, such as enhanced prescription monitoring programs (Whitmore et al., 2019; Ali et al., 2017; Davis and Carr, 2015; Haegerich et al., 2014) as well as state-level variation in

⁴In Appendix AI Table 8.1, I provide a list of the Medicaid expansion status of each state as of 2015 to accompany this figure.

⁵As a result, Kentucky and not Ohio will be included in the cross-border analyses.

⁶Hertel-Fernandez (2019) shows that well-financed and right-leaning interest groups, such as ALEC, played an important role in Republican-controlled state decisions.

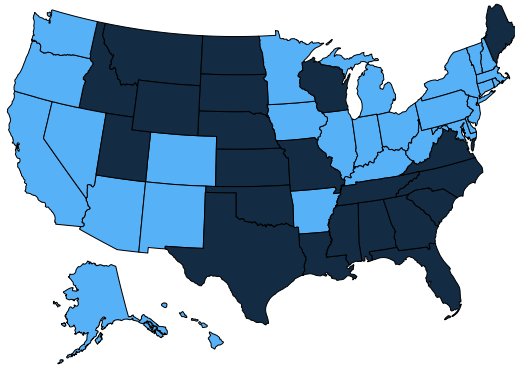


Figure 4.1: Medicaid Expansion Status (2015)

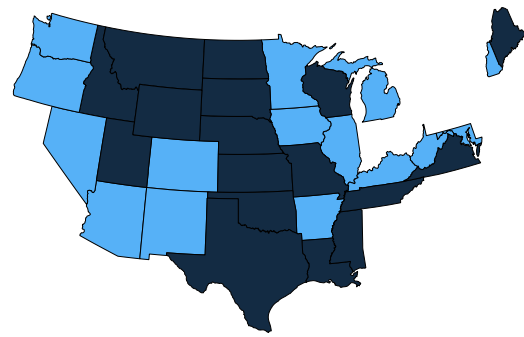


Figure 4.2: Border Sample Status (2015)

Note: These figures provide the Medicaid expansion status of each state as of 2015 the US (left) and in the border sample later studied (right). Lighter blue indicates that a state expanded Medicaid as of 2015. Darker blue indicates that the state had not.

other health policies (Gray et al., 2013). However, as can be seen in Figure 4.4 states that expanded Medicaid began to experience larger declines in opioid usage relative to non-expansion states.

In Figure 4.4, I compare how opioid prescription rates changed from 2014 to 2016—the two years following the onset of the ACA’s provisions and the original batch of states’ Medicaid (in)expansion decisions—in counties just on either side of Medicaid (in)-expansion borders. Specifically, I plot this two-year change in the opioid prescription rate as a function of the euclidean distance (in miles) from a county’s geographic centroid to the nearest border of a state that has a different Medicaid expansion status. Positive values to the right of zero reflect the changes experienced by counties in expansion states right near the border. Negative values to left of zero reflect the changes experienced by counties in non-expansion states just near the border. Counties in expansion states experienced considerably larger declines in opioid usage relative to counties just on the other side of the Medicaid expansion border that did not have access to same level of the policy. While the country as a whole experienced declines, Figure 4.4 suggests that counties in expansion states experienced more sizable declines in opioid usage on average. Appendix 4 Tables 8.8 and 8.9 provide geographic regression discontinuity estimates of the estimated impact of Medicaid expansion on opioid prescription rates. These estimates mirror the graphical evidence presented in Figure 4.4 and suggest that Medicaid expansion reduced opioid usage by between 3 and 12 prescriptions per 100 people, a substantively large decline.

In the run up to the 2016 presidential election, many political observers suggested that more severe expe-

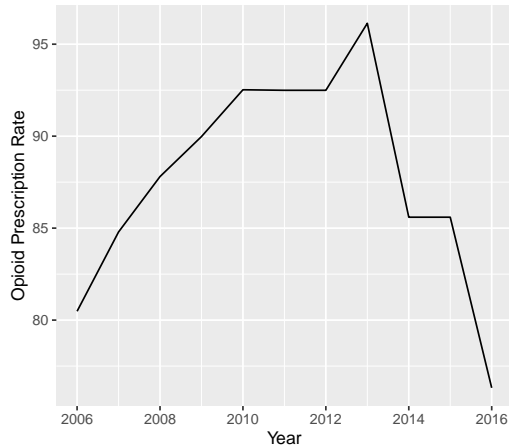


Figure 4.3: CDC Trends in Average Opioid Usage

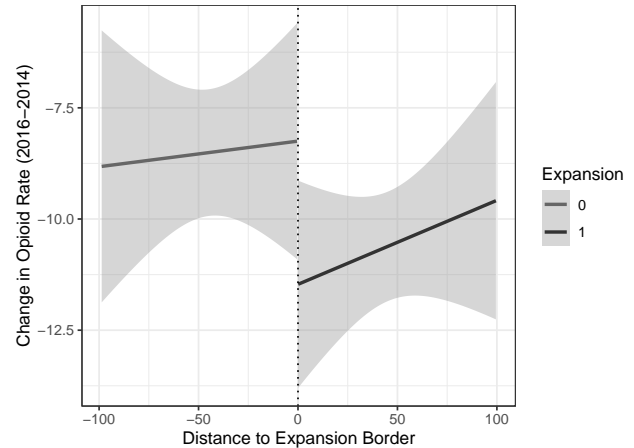


Figure 4.4: Δ Opioid Usage

periences and government failings with the opioid epidemic may have caused voters to support Donald Trump. Trump’s America was viewed to be a place where “opioids took over thousands of lives” (Garcia, 2017). Citizens of Trumpland were dying “deaths of despair,” and 2016 was when they had their voices heard (Newburger, 2018). Inherent in all of these anecdotal analyses was the constant assertion that places that experienced worse and worsening conditions with the opioid epidemic blamed President Obama and the Democratic Party for their community’s plight and supported Trump in turn. Indeed, some of the rhetoric surrounding the Trump campaign and the 2016 election connected the opioid epidemic specifically to the politics of the election and to debates about the quality of the ACA.

On the campaign trail in 2016, candidate Donald Trump regularly evoked the opioid epidemic to rally support often stating things like, “the people that are in trouble, the people that are addicted, we’re going to work with them and try to make them better” (Hauck and Stafford, 2017). Candidate Trump also often tweeted about the opioid epidemic and the ACA during the primary and general election periods. For example, on October 15, 2016 Trump tweeted, “Landing in New Hampshire soon to talk about the massive drug problem there, and all over the country.” Just days later on October 19, 2016 Trump tweeted, “We have to repeal & replace Obamacare! Look what its doing to people! #DrainTheSwamp,” later promoting the #ObamacareFail hashtag as the election neared.⁷ The *New York Times* were among multiple outlets that suggested that the attention Trump paid to the epidemic during the campaign was particularly influential with white working-class voters (Davis, 2017b).

In Figure 4.6 I provide graphical evidence of Trump’s role in increasing the salience and electoral relevance of the epidemic. Here, I use data from the Trump Tweet Archive to plot the number tweets by Trump

⁷Tweets are accessed via the Trump Twitter Archive, <http://www.trumptwitterarchive.com/archive>.

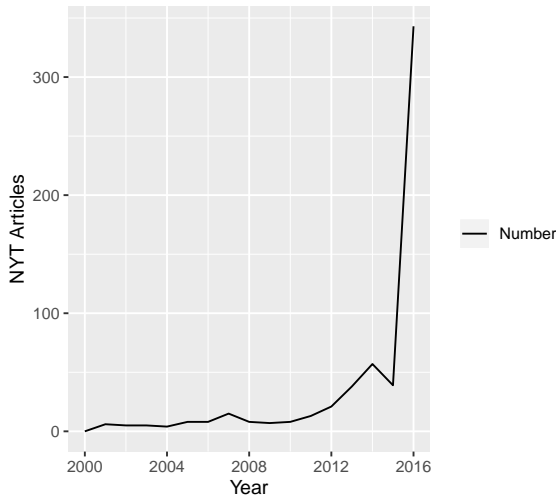


Figure 4.5: NYT Mentions of "Opioid"

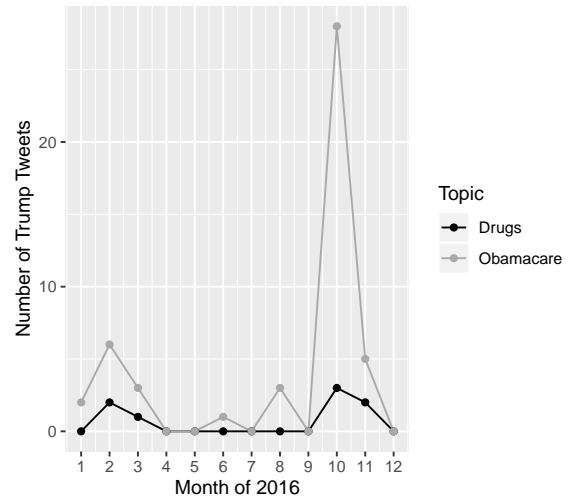


Figure 4.6: Trump Tweets

each month of 2016 mentioning either “drug” or “Obamacare,” such as the tweet examples mentioned previously. Two, albeit very differently sized, peaks are visible in Trump’s online discussions of the opioid epidemic and Obamacare. Trump’s tweets for both terms initially peaked during the early Republican primary months, especially around the New Hampshire primary—a state heavily impacted by opioid overdoses. Additionally, his mentions of both terms and especially Obamacare reached much higher peaks as the general election neared. These data show that Trump tweeted about the opioid epidemic (“drug”) 5 times and Obamacare 33 times in the final weeks of the campaign. Moreover, research by political communication scholars suggests that in addition to the direct attention paid to these issues by Trump, roughly 40% of all political ads aired during the 2016 presidential election cycle made reference to population health issues (Fowler et al., 2019). Additionally, nearly 5.5% of the all political ads run in federal and state/local races between 2012 and 2016 made reference either to Obamacare/ACA or Medicaid, while another 1% of all campaign ads specifically referenced drug addition (Fowler et al., 2019).

The activities by the Trump campaign and the broader political environment indeed appear to have made the opioid epidemic and the politics of the ACA/Medicaid expansion salient for voters during the 2016 election. As Hopkins (2010) argues, the increase of this type of “salient national rhetoric” is likely to cause citizens to, “find it easier to draw political conclusions from their experiences” (43). In other words, social and demographic differences between communities (like the severity of the of opioid epidemic, level of immigration in an area, etc), which ubiquitously vary in local relevance or level, are likely to be most politically important when that issue has been made salient by the national media environment and political elites. We can see in Figure 4.5 that, as measured by the number of articles mentioning the word “opioids” in the *New*

York Times, the opioid epidemic was indeed salient and likely politically relevant in 2016 for the first time, with the number of articles mentioning opioids jumping from 38 articles in 2015 to 343 in 2016. Using similar data, Clinton and Sances (2020) show that politics of Medicaid expansion, the ACA, and the potential repeal thereof were also highly salient during this same period. As a result, it seems plausible that there was some degree of opioid-based and ACA issue-voting and policy feedback in the 2016 presidential election.

Finally, the extant literature suggests that this particular case may be ideal for testing the competing predictions outlined in the previous section. Prior work has demonstrated that, consistent with canonical theories of policy feedback, state Medicaid expansion decisions impacted participatory policy feedback (Clinton and Sances, 2018) and attitudes about the Affordable Care Act (Hopkins and Parish, 2019; Clinton and Sances, 2020). Work on other opioid related policies suggests that opioid attitudes seem to be driven by self-interest (de Benedictis-Kessner and Hankinson, 2019), increasing the likelihood of directional policy feedback for this specific case. Finally, Kaufman and Hersh (2020) show that personal experiences with opioid overdoses matter politically. All told, these factors and the idiosyncratic nature of Medicaid expansion due to the *Sebelius* decision make this case ideal for testing the arguments outlined in the previous section.⁸

4.2 Data and Research Design

My hypotheses focus on the potential differences in presidential voting behavior between areas that received expanded Medicaid coverage between 2013 and 2015 and, as a result, experienced different levels of the severity of the opioid epidemic. For my purposes, states are considered to have expanded Medicaid if they had expanded Medicaid under the ACA or had an equivalent or more universal policy in place as of 2015—coded as 1 if expanded and 0 if not. To measure the changing severity of the opioid epidemic, I use data from the Centers for Disease Control (CDC). These data provide estimates of the number of opioid prescriptions per 100 people in each county in the US. The CDC collects reports from a sample of roughly 50,000 pharmacies across the country and includes estimates of both initial and refill prescriptions. Although there is some missing data, estimates are available for nearly all counties from 2006-2018.

I rely on these prescription data as a measure of how severe the opioid epidemic is in a locality over other potential measures like drug-related deaths and the Washington Post's DEA Pills database for practical reasons. In comparison to both measures, the CDC opioid prescription rate measure has far fewer cases of missing data and is publicly available for more years (most crucially 2016). Moreover, estimates of drug-related deaths are often noisy and may include non-opioid specific deaths. Fortunately, all three of these measures of the severity of the opioid epidemic are highly correlated and using one over the other is not

⁸Voters may not directly connect their opioid experiences with their states' Medicaid expansion decisions. Indeed, although both the opioid epidemic and Medicaid expansion/ACA were salient simultaneously, voters may not easily connect the two experiences. Instead, they may just experience the opioid epidemic, local health conditions around them, evaluating health policy and politicians more broadly. Indeed, this could help explain why the empirical analyses yield support more in favor of H3a over H3b and vice versa.

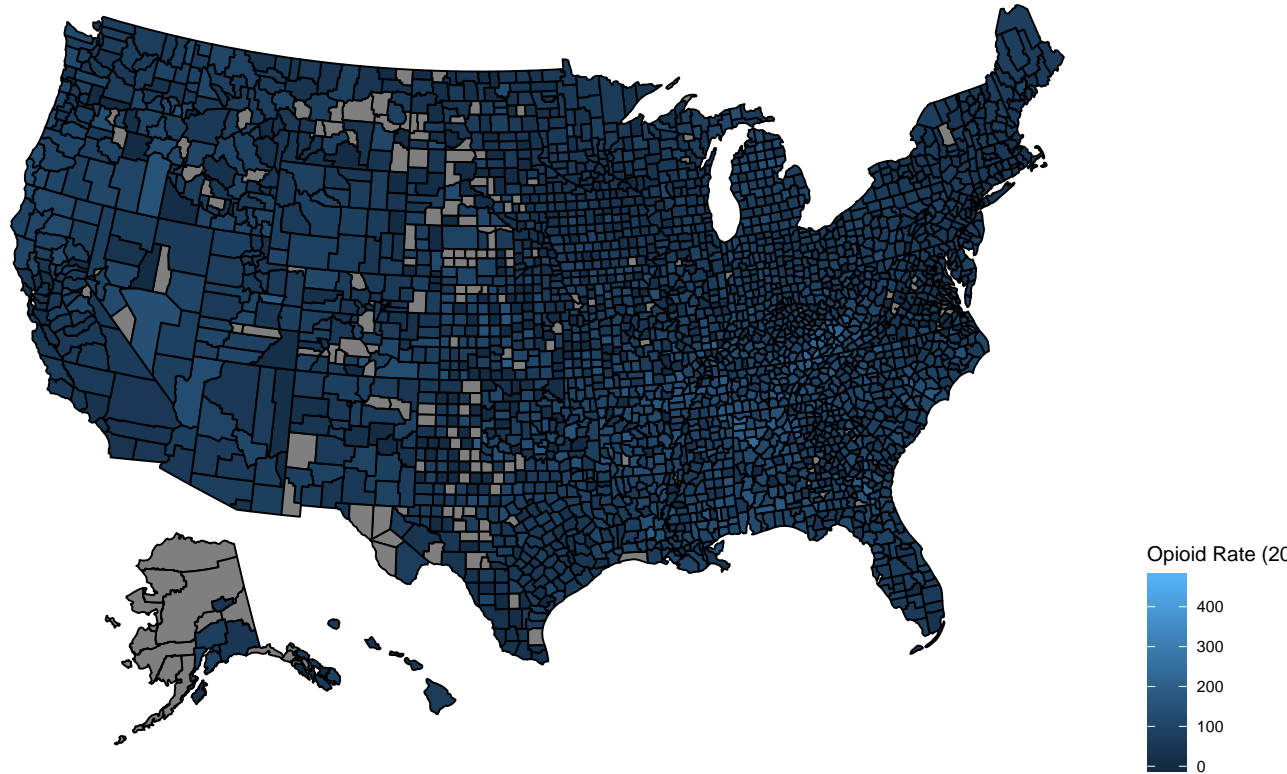
likely to matter empirically. In Appendix A1, I plot the bivariate relationships between the CDC opioid measure that I rely on and these two other measures. The correlation between the CDC opioid measure and the DEA pills estimate is 0.8 and the correlation between the CDC measure and drug-related deaths is 0.6. Substantively, these correlations imply that increasing opioid prescription rates from their minimum to maximum value is associated with an increase in approximately 37 drug-related deaths per 100,000—above the 90th percentile in drug-related deaths across the country in 2014.⁹

Figure 5.1 displays the geographic dispersion of the opioid epidemic by plotting the 2016 opioid prescription rate (prescriptions per 100 people) at the county level. The mean level of opioid prescription rates in 2016 is 76 and there is considerable variation across the US in opioid usage. Matching many of the anecdotes from the previous section, these data suggest that the most severely impacted areas were in Appalachia and the Rust Belt, with some of these counties having prescription to people ratios of 3 to 1 or higher at some point between 2006 and 2016.¹⁰

⁹I estimate a regression model predicting 2014 drug-related mortality rates as a function of 2014 opioid prescriptions along side these reported bivariate correlations in Appendix A1 Table 8.4.

¹⁰I rely on county level data of the opioid epidemic for three reasons. First, most existing measures of opioid epidemic severity only exist at county and state levels, making more fine-grained analyses with administrative data impossible. Second, existing survey measures of experiences with the opioid epidemic do not appear to reliably measure the severity of the opioid epidemic in communities. For example, Sides et al. (2019) use survey measures of whether respondents report knowing someone who is addicted to painkillers, drugs, or alcohol to dismiss notions that the opioid epidemic was electorally relevant in 2016. In Appendix 3 Table 8.7 I show that these survey items are *negatively* related to changes in the severity of the opioid epidemic from 2014 to 2016 and only slightly related to the absolute level of opioid prescriptions in communities. Third, scholars have demonstrated that community and group experiences are often more relevant predictors of political behavior, often using county-level data to do so (Brody and Sniderman, 1977; Huckfeldt, 1979; Mondak et al., 1996; Mutz and Mondak, 1997; Anoll, 2018; Hopkins, 2010; Ritchie and You, 2019).

Figure 4.7: County Level Opioid Prescription Rate (2016)



Source: Centers for Disease Control. The plot is the opioid prescription rate (prescriptions per 100) at the county level in 2016. Lighter colors indicate higher usage rates. Gray counties reflect missing data.

4.2.1 Geographic Discontinuity Design and Medicaid Expansion Borders

To assess the electoral effects of Medicaid expansion and the opioid epidemic, I employ a version of a geographic regression discontinuity design (GDD). The logic behind a GDD is that observations on either side of a substantively relevant geographic boundary (i.e., “treatment”) ought to vary as-if randomly on observable and unobservable dimensions (Keele and Titiunik, 2015). As a result, comparisons across substantively important borders can reveal the causal impact of different geographic unit treatments. The design I use in this project mirrors that of Clinton and Sances (2018).

Specifically, I exploit the fact that some states expanded Medicaid and some did not. As a result, state borders between expansion and non-expansion states provide substantively important variation in the “treatment” of policy change via Medicaid expansion. Moreover, and as I and others have shown, the decision to

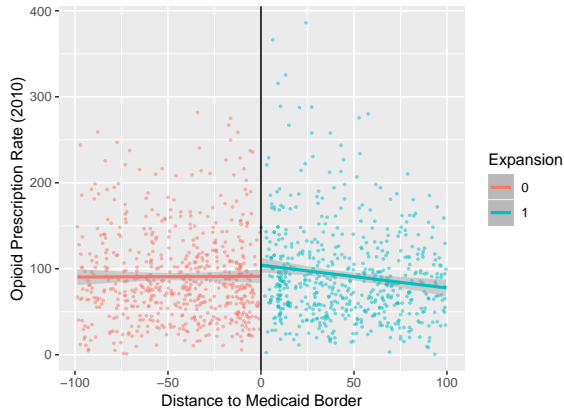


Figure 4.8: Opioid Prescription Rate (2010)

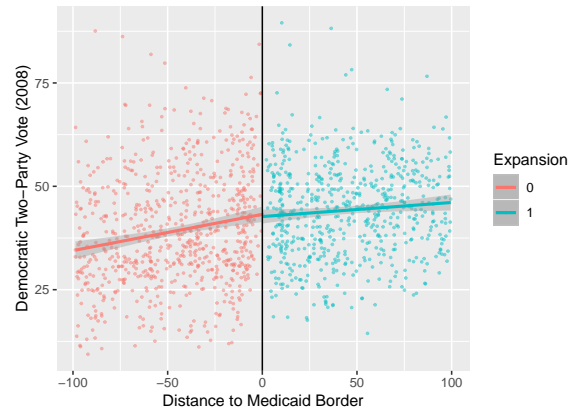


Figure 4.9: Democratic Vote (2008)

expand Medicaid had important impacts on the level of severity of the opioid epidemic. Thus, these border discontinuities also provide substantively important variation in the changing severity of the opioid epidemic. In Figure 4.2 I graphically display the logic of this design as well as the sample of states included in the GDD design. The goal of this design is to compare changes in voting behavior for communities just on either side of a Medicaid expansion border and in otherwise similar communities who have experienced different opioid epidemic trajectories as a result of Medicaid expansion.

Observations in the GDD are primarily defined by three quantities of interest: running, forcing, and outcome variables. The running variable is a continuous variable that captures “distance” to or from the forcing variable or cut point. Here, the running variable is measured as Euclidean distance (in miles) from the geographic centroid of the county to the closest state with a different Medicaid expansion status, with counties in expansion states taking on positive values (in miles) and counties in non-expansion states taking on negative ones.¹¹

The forcing variable, or cut point, is a county’s Medicaid expansion status, which is measured dichotomously with values of 1 for having expanded Medicaid and 0 for not. I rely on two outcome variables: the 2016 Democratic Party’s share of the two party vote and the change in the Democratic Party’s share of the two party vote from 2012 to 2016. To the standard design, which may focus simply on the impact of the policy, I also add and assess the political impact of opioid prescription rates on either side of the Medicaid

¹¹Within the empirical analyses, and as is common in GDD designs, distance to the border enters into the model as itself and other polynomial terms. Here, I also include distance-squared to help rule out differences that exist for cases further from the expansion border. I show in the appendix that results are robust to dropping the squared distance terms.

expansion borders.¹²

The GDD estimates causal effects if a few identifying assumptions are met. First, expansion and non-expansion observations must remain independent. This assumption requires that expansion status in one area must not impact conditions in another. This “no sorting” constraint is most likely violated if Medicaid expansion causes individuals to move across state borders (Clinton and Sances, 2018). Prior work suggests that this is not a concern as there is little evidence of Medicaid-induced migration (Clinton and Sances, 2018; Schwartz and Sommers, 2014). In Appendix 2 Table 8.6, I specifically test for whether out-going migration from expansion and non-expansion counties differed following the onset of Medicaid expansion; I find no differences in migration patterns for expansion and non-expansion counties or based on a counties opioid epidemic severity.

Second, treated and untreated units must serve as good counterfactuals of each other. The classic GDD setup requires that observed levels of the outcome variable be smooth at the discontinuity. That is to say, we should not observe a discontinuity in Democratic voting prior to the treatment. I graphically probe this identification assumption in Figure 4.9 by plotting the 2008 (pre-treatment) Democratic two-party vote share for counties along Medicaid expansion borders. Figure 4.9 provides strong evidence that there are not pre-treatment political differences between expansion and non-expansion counties. Moreover, models where I use *change* in the Democratic two party vote share as the dependent variable are akin to using a *difference-in-differences* design across the discontinuity.¹³ This design choice requires that prior to expansion counties in expansion and non-expansion states experienced similar trends in the outcome variable (Angrist and Pischke, 2008). In Appendix 2 Table 8.12, I show that prior to expansion, counties in expansion and non-expansion states also experienced similar trends in their voting behavior from 2004-2012. I also show in Figure 4.8 that prior to Medicaid expansion, the treatment and control counties experienced nearly identical opioid epidemic conditions.¹⁴ As a result, we can be reasonably sure that the GDD models are comparing mostly similar communities on either side of a fixed, policy-relevant geographic border. Following Clinton and Sances (2018) I use all observations within 100 miles of a Medicaid expansion border. With these observations, I estimate regressions of the following form:

¹²In addition to the primary variables of interest, I also estimate models that include control variables to rule out potential confounding explanations for a community’s level of support for the Democratic Party and the level of the opioid epidemic in the area, such as the area’s educational attainment (% of the population with less than a HS education) and socio-economic status of the area (median income, unemployment). These data come from the US Census ACS 2014 5 year estimates. Case and Deaton (2021) argue that communities with higher proportions of working class men have been the most frequent victims of “deaths of despair” like the opioid epidemic. Given the additional high correlation between these demographic factors and presidential voting, I include them alongside the main results to further rule out confounding explanations.

¹³I also included a lagged dependent variable (Democratic vote in 2004) to further rule out pre-treatment political differences.

¹⁴In Appendix 2 Table 8.5 I show that these unit also did not differ significantly in their levels of poverty, age, racial demographics, or income.

$$Y_{cs} = \alpha Expansion_{cs} + \beta OpioidRate_c + \mu(Expansion_{cs} \times OpioidRate_c) + \theta Distance_c + \eta(Expansion_{cs} \times Distance_c) + \gamma_{cs} + \varepsilon_c$$

Where the outcome variable, Y_{cs} , is the shift in the Democratic party's share of the two party vote from 2012 to 2016. $\alpha Expansion_s$ is a state level indicator for whether the state expanded Medicaid. $\beta OpioidRate_c$ represents a county's opioid prescription usage. Within the empirical models, I use three versions of this measure. First, I rely on an indicator variable for counties that experienced opioid prescription rate increases between 2014 to 2016.¹⁵ Next, I rely on the 2016 CDC opioid prescription rate and the logged transformed opioid prescription rate for each county. These measures allow for the analysis of impact of varying levels of the opioid epidemic on voting behavior. $\mu(Expansion_{sc} \times OpioidRate_c)$ is interaction term between a county's opioid rate and its Medicaid expansion status. This term assess whether voters in expansion and non-expansion states reacted to the opioid epidemic differently.

$\theta Distance_c$, the running variable, is the distance (in miles) from the county to the closest state with a different Medicaid expansion status. Following convention (Lee and Lemieux, 2010), I allow the slope of the running variable to vary on either side of the border with the interaction term $\eta(Expansion_{cs} \times Distance_c)$ and include a series of polynomial terms of the $Distance$ variable interacted with the Expansion indicator, represented in the formula generically by γ_{cs} .¹⁶ ε_c represents idiosyncratic errors; all models report cluster-robust standard errors. I also include state fixed effects to rule out all time-invariant state level confounding factors. These fixed effects accounts for all stable state-level differences in opioid policies (e.g. (Whitmore et al., 2019; Ali et al., 2017; Davis and Carr, 2015; Haegerich et al., 2014)), pre-existing differences in state health care reforms (e.g.(Gray et al., 2013)) state government partisanship, and any other substantively relevant, time-invariant state-level factors.¹⁷

4.3 Medicaid Expansion, the Opioid Epidemic, and Voting Behavior

Here, I estimate the effects of Medicaid expansion and the opioid epidemic on presidential voting. To do so, I exploit the GDD model discussed above, where I compare the voting behavior of counties on either side of Medicaid expansion borders. Recall the aims of the analyses were to assess if counties in Medicaid expansion states increased their Democratic support relative to counties in non-expansion states (H1) and how

¹⁵This specification does not rely on the same linear effect assumptions as using the opioid rate.

¹⁶All results are robust to dropping the polynomial terms.

¹⁷All models weight observations by their voting age population.

the varying severity of the opioid epidemic differentially impacted communities in both types of states (H2, H3a, H3b). Regression results are reported in Table 5.3. Consistent with canonical policy feedback theories and in support of (H1), we see that in all models Medicaid expansion was positively related to increased Democratic support between 2012 and 2016. The results of the models imply that communities in expansion states experiencing low opioid epidemic severity, shifted their support toward the Democratic Party between 2012 and 2016. However, this relationship was significantly moderated by how severely a county was affected by the opioid epidemic following Medicaid expansion.

Consistent with (H2), the largest increase in vote share for Medicaid expansion states was observed in communities that had the lowest levels of opioid epidemic severity. Conversely, communities in expansion states that were still deeply affected by the opioid epidemic shifted strongly toward the Republican party and Donald Trump in 2016. In each of the models—with three of the five reaching traditional standards of statistical significance and one narrowly missing such marks—the Democratic Party was credited (penalized) slightly more strongly for opioid epidemic conditions in expansion states. The results of model 4 imply that a one-percent increase in the severity of the opioid epidemic is associated with a 2.5 percentage point decrease in the Democratic Two Party vote from 2012 to 2016.¹⁸

Similar policy effects for opioid rates are observed in non-expansion states as well. Consistent with (H3b), I find that counties in non-expansion states that experienced worse opioid epidemic conditions also shifted more strongly away from the Democratic Party between 2012 and 2016. The results from Model 2 imply that a one-standard deviation increase in the severity of the opioid epidemic (about 42 prescriptions per 100 people) is associated with a 2 percentage point decrease in the Democratic share of the two party vote between 2012 and 2016. Focusing on just the places that experienced the least favorable opioid changes¹⁹ from 2014 to 2016 (model 1), places with the largest increases in opioid usage from 2014 to 2016 in non-expansion states shifted their support towards the Democratic Party by roughly 4.5 percentage points. Given the similar direction and size of the opioid effects in expansion and non-expansion states, the results yield support more in favor of (H3b) over (H3a). Voters experiencing better or worse opioid conditions voted similarly regardless of their policy experiences, blaming or crediting the Democratic Party for local health conditions, even though state Republicans were more responsible for the comparatively worse health outcomes experienced in non-

¹⁸These findings are robust to a variety of model specifications and robustness checks, including controlling for other positive health and financial effects of Medicaid expansion (Finkelstein et al., 2012), dropping the top and bottom 10% of observations in terms of opioid severity, and accounting for the potential spurious influence of opioids via coal employment in Appalachia. Full results are presented in Appendix A7 in Tables 8.13, 8.14, 8.15, and 8.16.

¹⁹Nearly 20% of the sample experienced increases in opioid usage. States with counties experiencing such increases are listed in Appendix A4. Most of these counties are in states that did not expand Medicaid; however there are some observations in each treatment category. Here, I rely on an indicator for whether the respondent is in the upper two deciles of opioid changes. This includes all counties that experienced increases in opioid usage and a small amount of counties that experiences negligible declines in usage. Results are robust to restricting this category further.

expansion states.²⁰

Overall, the prior analyses suggest highly conditional policy feedback effects. In Medicaid expansion states, areas with favorable opioid conditions responded by increasing their support for the Democratic Party by a modest amount. However, areas in the same expansion states with above median levels of opioid epidemic severity shifted strongly towards the Republican Party. In many cases, the positive feedback effects of Medicaid expansion were entirely offset by large penalties associated with the opioid epidemic. I further probe the conditional nature of these effects exploring the extent to which the partisanship of the state government influenced the feedback effects previously observed. Although the prior analyses have held constant many of idiosyncratic state-level factors via state fixed effects, it possible that states with Republican governors and state legislatures that also choose to expand Medicaid—contra many of their co-partisans— would experience different patterns of policy feedback than observed in the full sample.

To assess this, I subset the original border sample to the 787 counties in expansion and non-expansion states with Republican governors and state legislatures²¹ and replicate the original analyses.²² In Figure 4.10 I provide a graphical depiction of these results.²³ The figure provides the estimated predicted change in Democratic vote as a function of a two-standard deviation increase in a county's Medicaid expansion status (this is essentially 1 or the full impact of expanding Medicaid) and in opioid usage for the full and GOP samples separately.

The relationships between the opioid epidemic and Medicaid expansion on change in the Democratic vote are similar across the models. However, consistent with muted effects based on the partisanship of the state government, the estimated effect of Medicaid expansion on change in the Democratic vote is roughly 1 percentage point smaller in the GOP controlled states than in the full sample. This more modest effect may suggest that it was easier for voters to engage in this type of policy feedback when the partisan-alignment of the state government matched the incumbent president's party. Interestingly, the effects of the opioid epidemic, although still substantively and statistically significant, are about half as large in magnitude in the GOP-controlled sample as in the full sample. Like the Medicaid expansion results, this smaller magnitude implies that voters in expansion states that had Democratic governors were marginally more likely to penalize (credit) the federal Democratic Party than voters in expansion states with Republican governors.

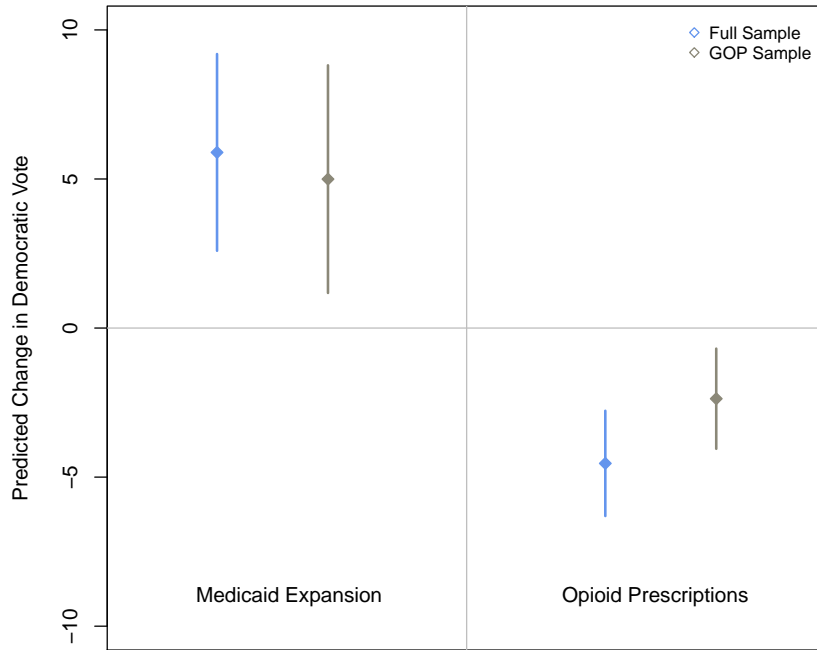
²⁰Individual-level analyses using survey data on opioid experiences yields similar results, guarding against concerns of ecological inference issues. Results are presented in Appendix A8 Table 8.18.

²¹Details on the states in this sample and descriptive statistics are in Appendix 1 8.3. Due to missingness, only 740 of the 787 counties are used in the analyses.

²²Recall, the main analyses showed essentially no-conditional relationship between opioid usage and Medicaid expansion. As a result, I drop the interaction term here.

²³The full model results that produced this figure are reported in Appendix A7 8.17.

Figure 4.10: Impact of a Two-Standard Deviation Change in Variable (Full and GOP Samples)



Note: This figure plots the predicted change in the Democratic two party vote from 2012 to 2016 as a function of a two-standard deviation increase in the two independent variables (Medicaid expansion, opioid prescription rate) for the full sample of states and the GOP sample. Column 1 plots the predicted change in the outcome variable for Medicaid expansion units in the full (blue) and GOP (gray) samples. Column 2 provides the estimates for opioid prescription rates. The full model results that produced this figure are reported in Appendix A7 8.17.

These analyses reveal that the largest positive policy feedback gains for the Democratic Party occurred in states with Democratic governors and places with favorable opioid epidemic conditions. States that expanded Medicaid, but were controlled by Republicans, experienced smaller feedback effects. Moreover, the Democratic gains in expansion states were highly limited to places with low levels opioid epidemic severity. Finally, the Republican Party performed more strongly in non-expansion states and places where the opioid epidemic was worse. Perversely, these results suggest that the Republican Party performed more strongly in areas where states opted out of Medicaid expansion and where the opioid epidemic was more severe even compared to how their party fared in similar GOP-controlled states that chose to expand Medicaid and experienced more favorable opioid epidemic conditions on average.

4.4 Conclusion

The opioid epidemic has ravaged American communities for the better part of three decades. Beginning mostly in rural Appalachia, the epidemic became a national force in 2016 as the news media and presidential candidates focused the nation's eyes on the public health threat and as the epidemic spread into America's cities and suburbs. Anecdotes at the time provided compelling narratives that suggested that the most opioid-riddled communities channelled their disaffection into support for then-candidate Donald Trump. Despite these stories, little empirical evidence existed as to how or why the epidemic may have differentially influenced voters in these ways.

Drawing on the political accountability literature, I have argued that the federalist structure of American government affects how well voters are able to connect their experiences, like the opioid epidemic, to the specific policy decisions of elites and ultimately to their electoral decision-making. Building on work on voter blame attribution errors in federalist systems (Sances, 2017), I have argued that federalism provides state-level elites with unique opportunities to undermine or increase support for federal policies. As a result, state decisions to undermine or support a federal policy can impact how well voters perceive federal policies are functioning via policy effects and who voters hold accountable for the conditions of the world around them.

To analyze how these dynamics influence voters, I exploited the fact that the Affordable Care Act included many provisions for fighting the severity of the opioid epidemic. However, states were only able to receive these services if their state government chose to expand Medicaid enrollment. By comparing counties along the borders of expansion states, I gained considerable inferential leverage to explore the impact of partisan state government decision making on changes in the well-being of communities and political behavior. Using this design, I found evidence that the decision to expand or not expand Medicaid had important effects on the trajectory of the nation's opioid epidemic, with counties in states that expanded Medicaid experiencing larger declines in opioid usage. These policy effects, as well as the direct impact of the policy, produced differential policy feedback effects. The Democratic Party's presidential ticket benefited from state government's expanding Medicaid and from declines in opioid usage. However, and somewhat perversely, Donald Trump performed better in non-expansion counties and where the opioid epidemic was worse—even though members of his party were partly responsible for these conditions.

This work makes a number of scholarly contributions. First, while Michener (2018) finds evidence of federalism-induced variation in participatory feedback, I extend this work by showing that variation in policy experiences made possible by federalism also affects directional policy feedback. Democrats performed modestly more positively in the places that received expanded policy. Republicans, however, benefited from

resisting Medicaid expansion and preventing their constituents from expanded eligibility. These results suggest that federalism may play an unappreciated role in hampering down the effects of federal policy on politics and policy feedback across the fifty states. Additionally, I show that policy effects, not just policy, play an important role in policy feedback. When specific policy effects are made salient, they are likely to be translated into political behavior. However, these effects are likely to vary depending on local relevance. More research is needed on the effects of national or news salience on policy feedback.

This work also contributes indirectly to debates on political accountability in the states. My work suggests that federalism can shape the direction in which accountability occurs. Many voters seemed to be holding the federal Democratic Party responsible for the actions of state level Republicans. In this way, my work builds on Sances (2017) and Rogers (2017), who document major pathologies in accountability patterns due to federalism. Building on Sances (2017), I show that voters tend to blame less responsible actors for even salient policy issues and even on policies where voters have the ability to hold the correct actors responsible. Building on Rogers (2017), I show that even when voters are responding retrospectively to changing conditions in their state or locality, and not just legislative action or roll call votes, they tend to blame the president for more proximate conditions and representation.

This work also contributes to the literature on the importance of partisan control of state government. There is a growing body of work suggesting that which party controls a state government may not matter much for the objective conditions of citizens' lives or public policy (Dynes and Holbein, 2019; Grossman, 2019). While the states themselves may not be able to pass policies that produce sizable differences in certain sectors of social life, their ability to undermine federal policies appears to have large impacts (Herd and Moynihan, 2018). Moreover, their powers in the area of health care have proven to be even more demonstrably relevant for the lives of ordinary people during the COVID-19 pandemic (Patterson, 2020). Along these lines, my work demonstrates that the largely partisan decision to expand or not expand Medicaid had large impacts on citizen well-being and that this, in turn, had important political effects.

Finally, more work is needed to understand the long-term effects of experiencing dismal health and economic conditions. While this work demonstrates that the incumbent president is held responsible for such experiences, less is known about how these more negative life experiences contribute to differential demands from government and support for political elites over time. For example, more work is needed to better understand whether negative experiences undermine support for the incumbent government in quick retrospective fashion or if support and trust in the government more broadly declines as a result of these experiences—potentially leading to a longer-term cycle of misery and declining support for assistance. Additionally, considerably more research is needed to understand how individuals of different social, racial, ethnic, and partisan backgrounds react to these forces.

Table 4.1: Effects of Opioid Epidemic and Medicaid Expansion on Voting Behavior

	<i>Dependent variable:</i>				
	Δ Democratic Two Party Vote (2016-2012)				
	(1)	(2)	(3)	(4)	(5)
Opioid Increase (2014-2016)	-4.475*** (0.534)				
Opioid Rate (2016)		-0.049*** (0.009)	-0.028*** (0.009)		
log(Opioid Rate)				-1.035** (0.492)	-0.589 (0.397)
Medicaid Expansion	3.300* (1.713)	6.684*** (2.306)	11.320*** (2.284)	10.555** (4.752)	17.911*** (4.208)
Opioid Increase*Exp.	-0.483 (1.069)				
Opioid Rate*Exp.		-0.009 (0.014)	-0.023* (0.013)		
log(Opioid Rate)*Exp.				-1.549* (0.911)	-2.171*** (0.811)
Dem. Vote (2004)	0.151*** (0.025)	0.123*** (0.025)		0.138*** (0.025)	
log(Median Income)			12.178*** (1.261)		13.059*** (1.238)
Unemployment Rate			0.685*** (0.146)		0.704*** (0.150)
% Less than H.S.			-0.100* (0.057)		-0.101* (0.058)
Constant	-10.480*** (2.371)	-6.416*** (2.373)	-138.083*** (8.760)	-5.675** (2.879)	-147.088*** (8.887)
State Fixed Effects	✓	✓	✓	✓	✓
Polynomial Terms	✓	✓		✓	
Population Weights	✓	✓	✓	✓	✓
Observations	1,266	1,272	1,272	1,272	1,272
R ²	0.385	0.406	0.521	0.370	0.510
Adjusted R ²	0.366	0.388	0.506	0.351	0.494

Note:

*p<0.1; **p<0.05; ***p<0.01

CHAPTER 5

Dying for the Donald? The Politics of the Rural Hospital Crisis

“The reason rural hospitals in South Carolina have closed is because Obamacare has been a disaster for our state.” - Senator Lindsey Graham (R-SC), 10/30/2020.

Over the past decade, rural communities across the US have experienced rapid declines in their access to health care. Since 2005, over 200 rural hospitals have closed, leaving thousands of rural communities without immediate access to life-saving medical care. While the causes of the decline in rural health care access are multifaceted, partisan politics and public policy play increasingly important roles. As the quote above from Senator Lindsey Graham suggests, Republican elites have attempted to connect more recent rural hospital closures to the Affordable Care Act (ACA), blaming the Democratic Party and the ACA for the negative health experiences of rural voters. Who do people blame for these types of changes to their health care? More broadly, who do voters hold responsible for social and public policy failures that limit access to basic needs? These questions strike at the foundation of democratic government. How and which voters respond to government failure directly affects who holds power and how social problems are handled (Malhotra and Kuo, 2008). More theoretically, answers to these questions have important implications for our understandings of political accountability and policy feedback in the US.

I show, despite Senator Graham’s insistence, that the vast majority of hospital closures since 2013 have been concentrated in Republican states that did not expand Medicaid via the Affordable Care Act. Indeed, other public health scholars have argued that the decision to not expand Medicaid has been the key driver of the decline of rural hospital finances and ultimately hospital closures over the last decade (Lindrooth et al., 2018). As such, the rejection of the ACA by Republicans, not the Democrats and the ACA *per se*, has caused the most recent waves of hospital closures. These rural hospital closures have worsened health care provision and further limited access to care in some of the least healthy and most needy communities in the US. Worse yet, some estimates suggest that as many as *one-fourth* of all active rural hospitals are in danger of closing in the near future (Chartis, 2020). As a result, understanding the political impact of these rural hospital closings has immediate and future importance for rural public health and electoral politics more broadly.

To better understand the political effects of these closings and how voters respond to access to care concerns more broadly, I collect data on the location and timing of all rural hospital closings in the US from 2010 to 2018 and merge this information with data on county-level public health indicators, demographics, and economic outcomes. To hone in on whether voters hold local Republican politicians or the federal

Democratic Party for local health conditions, I restrict my sample to only the rural hospital closures that occurred in states that did not expand Medicaid and with Republican state governments.¹ With this sample, I create a matched set of the most similar rural communities affected and not affected by hospital closings during the period. After merging these matched county-level data with the geolocation of survey respondents from the 2010-2018 CCES waves, I analyze the impact of a hospital closing on the probability that individual respondents in affected areas vote for or against the incumbent president and for or against the Republican gubernatorial candidate in elections from 2012-2018.

Statistical analyses of county-level data reveal that hospital closings between 2012 and 2016 likely cost the Democratic Party 1% of the presidential vote in affected communities. Survey data imply that hospital closings led rural independents to vote against the incumbent Democratic party (or for Donald Trump) in the 2016 presidential election, suggesting that voters hold the president accountable for changes to health care environments. Consistent with classic retrospective and policy feedback accounts, rural independents responded to hospital closures in their communities by perceiving the economy to be worse off under President Obama, being less supportive of the Affordable Care Act, and ultimately voting for Donald Trump. However, both Republicans and Democrats alike were not electorally affected by hospital closures in their communities. Despite the grave public health and economic effects these closures, partisans were not more or less likely to vote for the incumbent presidential party than their co-partisans in similar communities.

At the state level, I find no evidence that these rural hospital closings influence gubernatorial voting (or approval) for independent, Republican, or Democratic voters. Consistent with recent work on blame attribution errors in political accountability due to federalism (Malhotra and Kuo, 2008; Sances, 2017; Rogers, 2017), I show that independent voters respond to local hospital closings by blaming the president, but not by holding more proximate officials accountable. Consistent with work on the role of partisanship in electoral accountability and political judgement (Heersink et al., 2020; Malhotra and Kuo, 2008; Eggers, 2014; Lodge and Taber, 2013; Brown, 2010; Bartels, 2002), as well as work on the nationalization of US politics (Hopkins, 2018), I find that partisans ultimately do not seem to update their evaluations of local politicians at all in response to local hospital closures. Instead, Republicans and Democrats are as likely to vote for their party's gubernatorial nominee no matter if the crisis hit their community.

These findings have important implications for the status of rural public health and electoral politics in the US. On the electoral front, the results suggest, that most rural voters are not likely to hold local (mostly Republican) officials accountable for their roles in the declining status of rural health, even though this decline is largely the result of state (again, mostly Republican) decisions to opt out of Medicaid expansion. Given

¹This sample restriction still includes nearly 80% of all rural hospital closures that occurred during the same time period, further highlighting the importance of partisan decisions to opt out of Medicaid expansion.

recent trends in partisan polarization in the public and the modest Republican dominance of rural electorate, there is seemingly little hope for electoral accountability on this issue or a large public push for improved health care provision in rural America. More optimistically, some Republican states have expanded Medicaid in the last year via ballot initiative. As with other issues of social inequality, removing the issue of health care from partisan electoral decisions may stoke a different kind of public and policy response (Franko and Witko, 2018).

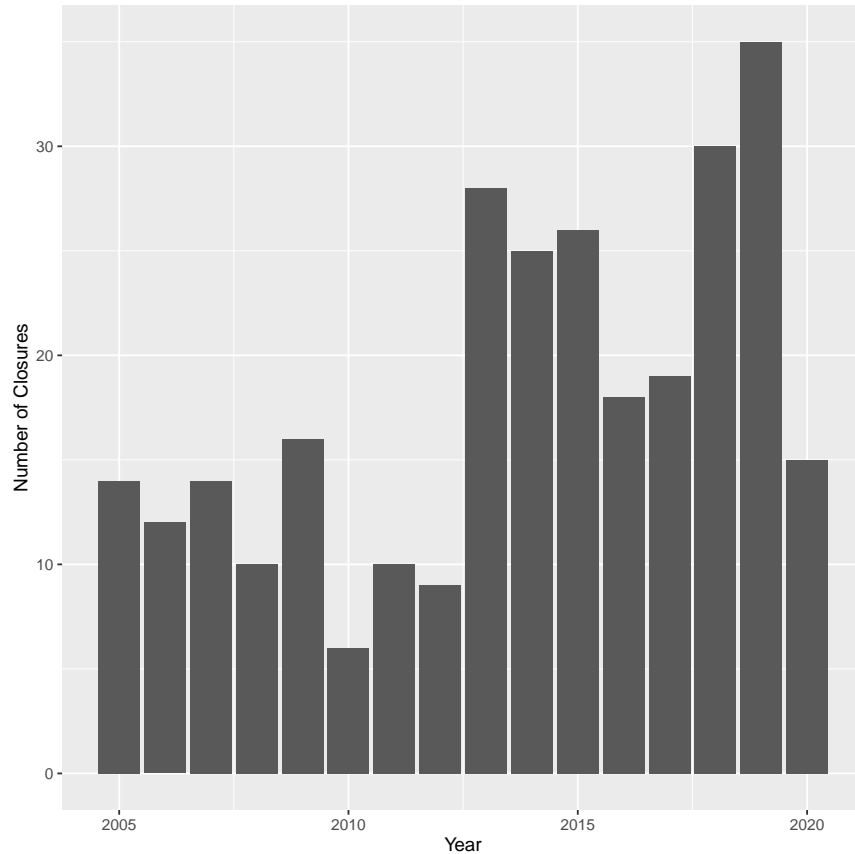
On the public health front, these findings less positively imply that some of the least healthy and most needy rural communities are likely to experience continued declines in public health as rural hospitals are likely to continue closing. The declining health care infrastructure in rural America poses real threats to the health of large swaths of the country. Indeed, this crisis has never been more publicly relevant, as the COVID-19 pandemic is ravaging rural communities, many of which no longer have hospitals. Until Republican elites are strategically incentivized to improve rural health care access, more aggressive health policy solutions are pursued by state governments, or advocates take-up ballot initiatives, access to health care in rural America is likely to become more restricted.

5.1 The Politics of the Rural Hospital Crisis

Rural America is in the midst of a dire health care infrastructure crisis. As the opioid epidemic and other “deaths of despair” have ravaged rural communities over the last two decades (Case and Deaton, 2021), the accessibility of medical care in rural America has simultaneously (and rapidly) deteriorated due to waves of rural hospital closings. Data provided by the University of North Carolina Sheps Center show that nearly 200 rural hospitals have closed since 2005, leaving many rural communities without health care providers and many poor, elderly, or sick people long distances from the nearest possible emergency help. Figure 5.1 plots these data on hospital closings by year from 2005 to 2020. In the early period (2005-2009) when the number of closures was lower, the key drivers of the hospital closure crises were mostly demographic in nature. The aging (Carr and Kefalas, 2009), unhealthy, often uninsured populations of rural areas placed financial strain on rural hospitals, leading to many of the closures (Kaufman et al., 2016).

After 2009, however, partisan politics and political decisions played increasingly important roles in explaining patterns of rural hospital closings. Specifically, the politics of the Affordable Care Act (ACA) and subsequent Medicaid expansion decisions of state governments has shaped the patterns we observe in Figure 5.1. Whether for symbolic partisan politics, principled objection, or influence by Republican-aligned interest groups, Republican politicians at the state level fought the implementation of the ACA, and specifically fought to keep their states from expanding Medicaid (Herd and Moynihan, 2018; Hertel-Fernandez, 2019). Many high-profile Republican governors, like Scott Walker and Bobby Jindal, promoted their presidential

Figure 5.1: US Hospital Closures, 2005-2020

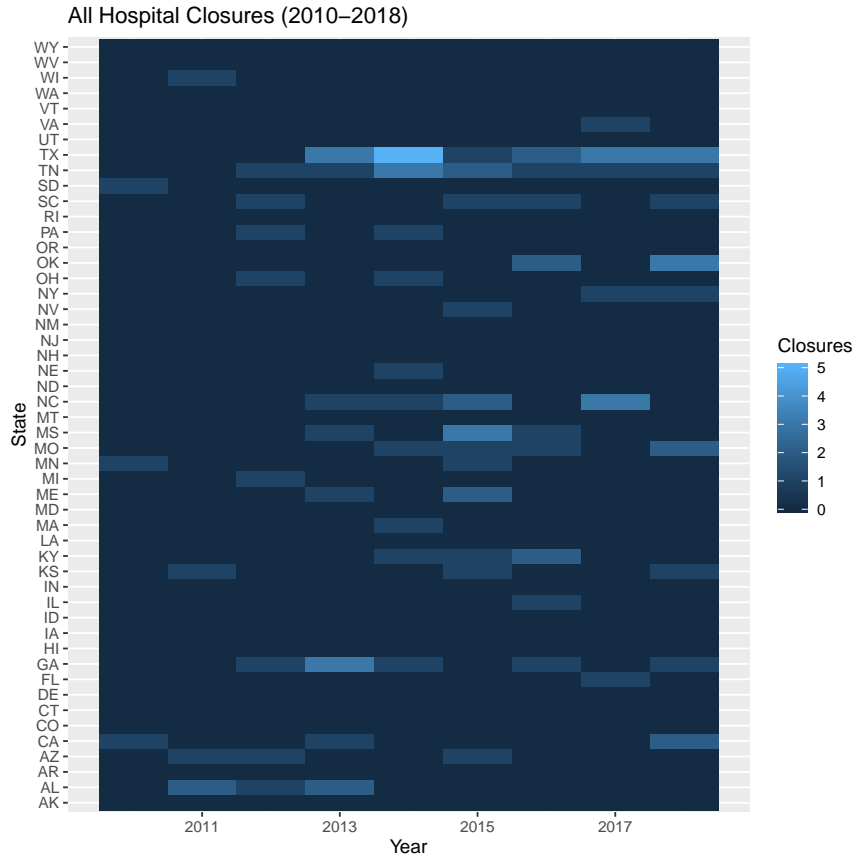


Source: University of North Carolina Sheps Center. This plot displays how many hospitals closed in the US by year from 2005-2020.

campaign aspirations on being firmly against Medicaid expansion and the ACA (Herd and Moynihan, 2018; Cassidy, 2017).

These partisan decisions to not expand Medicaid have had important effects that have heightened the health security risks (e.g. Hacker (2019)) of many rural Americans, including exaggerating disparities in insurance rates (Michener, 2018; Clinton and Sances, 2018) and worsening the opioid epidemic (Cher et al., 2019). More critically, states that failed to expand Medicaid actively harmed their rural hospital infrastructure, setting off waves of hospital closures in rural areas (Chartis, 2020; Lindrooth et al., 2018; Wishner et al., 2016). As Figure 5.1 shows, the pace of hospital closures rapidly increased after 2013. This spike occurred following the *National Federation of Independent Business v. Sebelius* US Supreme Court decision, which allowed states to opt out of the Medicaid expansion provisions of the ACA. This is the moment where the stability of health care provision in rural communities began to diverge in Medicaid expansion and in-expansion states and, as a byproduct, in Republican and Democratic led states.

Figure 5.2: US Hospital Closures (by state), 2010-2018



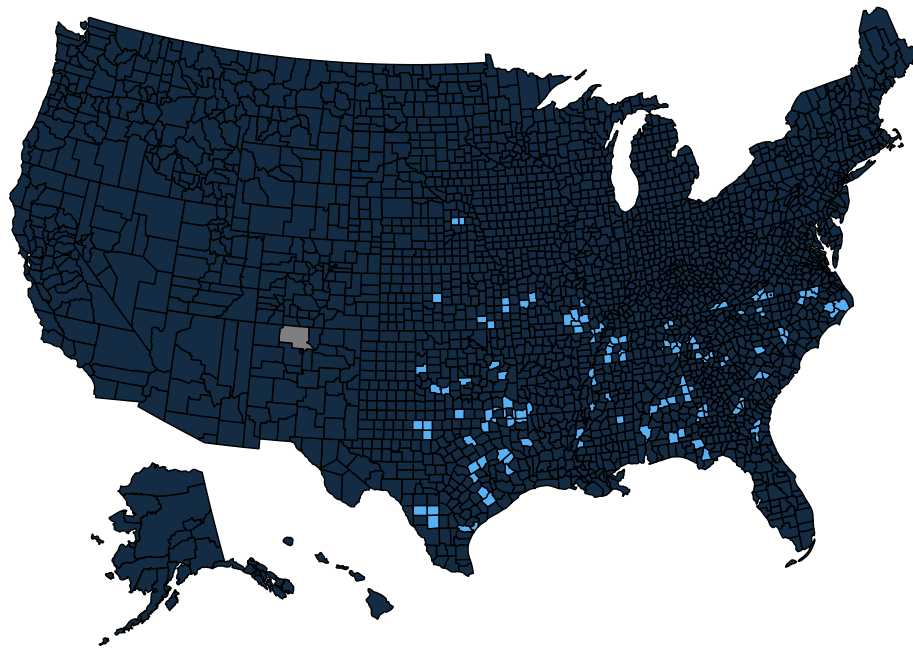
Source: University of North Carolina Sheps Center. This plot displays how many hospitals closed in each state by year from 2010-2018.

Figure 5.2 provides state-by-state timelines of the number of rural hospitals closed in each state from 2010 to 2018. In the figure, lighter colors represent more hospital closings for that state-year. As the plot shows, rural communities in Tennessee and Texas were much more likely to experience hospital closures than similar communities in other states. Georgia, Mississippi, and North Carolina also experienced relatively high numbers of rural hospital closings during the period—none of these states have expanded Medicaid.

In Table 9.1 of Appendix 1, I list the states that experienced hospital closures by year, partisanship of the governor, and whether or not that state had expanded Medicaid at the time. In line with the work cited above, the referenced table shows that most post-ACA hospital closures were concentrated in states that did not expand Medicaid and that were led by Republican governors. Between 2010 and 2018, 80% of hospital closures occurred in states with Republican governors. Moreover, the vast majority closures that

occurred after 2013 were in states that did not expand Medicaid.² Figure 5.4 geographically displays all communities impacted by a rural hospital closure between 2010 and 2018 in Republican and non-Medicaid expansion states. The map indicates that most of these hospital closures are concentrated in the South and lower Midwest.

Figure 5.3: GOP and Non-Medicaid Expansion State Rural Hospital Closures



Light blue counties indicate counties that were exposed to rural hospital closures in GOP states that did not expand Medicaid from 2010-2018.

The community-wide effects of these rural hospital closures are not trivial. Rural areas tend to already face under-provision of health care services and heightened need for them. These hospital closures reduce local residents' abilities to use emergency care (which is commonly used by uninsured individuals), lead to decreases in access to other forms of health care (including preventative medicine, responsible pain management and mental health), and often cause other medical professionals to abandon the area all together—further exacerbating all of these issues (Wishner et al., 2016). Moreover, losing a local hospital directly costs lives, as distance to emergency health care is commonly associated within increased patient mortality (Nicholl et al., 2007).

Community hospital closures also have important economic affects, leading to large reductions in em-

²There are some instances of hospital closures in Medicaid expansion states, including closers in California (2013, 2018), Kentucky (2014, 2015, 2016), Minnesota (2015), Nevada (2015), and New York (2017, 2018), illustrating variation in both the partisan and health care institutional environments experiencing the crisis.

ployment and declines in personal spending and income in the affected areas (Holmes et al., 2006). When a rural hospital closes, the entire community is affected: needy people lose their access to health care and many others their jobs. Some scholars suggest that between 2012 and 2016—when many of these hospital closures occurred—rural voters began to respond to their declining health and economic conditions by supporting Donald Trump and the Republican Party more broadly (Case and Deaton, 2021; Metzler, 2019; Cramer, 2016). Moreover, as the quote from Senator Graham at the onset of this manuscript suggests, Republican politicians attempted to deflect responsibility and place the blame for local closures on the ACA and the federal Democratic Party.

5.2 How Citizens Respond in a Federalist System

Understanding how citizens respond electorally to life-changing social forces—like when your access to health care is suddenly cut off—is of theoretical and practical importance. Theoretically, these questions strike at core debates in the political accountability and policy feedback literatures over whether voters respond to government and environmental changes. In the real world, these questions have implications for the trajectories of health crises facing the public. In competitive partisan environments, where parties offer radically different policy responses to health crises, who voters hold accountable for their health experiences can have important and direct consequences for who lives and dies (Patterson, 2020). Recent empirical work in political accountability in the US has demonstrated that the president and the president's party are at the center of voter responses to crises and other forms of societal hardship. From events beyond presidents' control (Sances, 2017; Achen and Bartels, 2016; Healy and Malhotra, 2010) to presidents' responses to the forces of nature (Heersink et al., 2020; Reeves, 2011; Malhotra and Kuo, 2008), presidents are often held electorally responsible for the negative forces that affect American voters.³

However, presidents often have little-to-no influence on local level variation in economic or other more proximate forms of social wellbeing. Instead, state and local governments are often important drivers of local variation in crisis response, quality of life, and experiences with all levels of government (Montez et al., 2020; Michener, 2018; Grumbach, 2018; Herd and Moynihan, 2018; Sances and You, 2017).⁴ As such, the US's system of federalism can, depending on the actions of partisan elites, cause citizens from different parts of the country to experience vastly different lives in terms of socioeconomic, health, and overall life happiness outcomes.⁵ In a president-centered system of federalism, the existence of wildly different experiences with and government responses to social problems creates potential problems for political accountability. Voters

³This occurs in addition to or along side of being held accountable for more traditional political and economic forces (Lenz and Healy, 2019; Ritchie and You, 2019; Hibbs, 1987; Lewis-Beck, 1985; Kramer, 1971).

⁴But see, Dynes and Holbein (2019).

⁵Individuals residing in more Democratic and liberal areas tend to experience more favorable outcomes in these regards (Montez et al., 2020; Radcliff, 2013).

may blame the president for the actions of other levels of government, especially if partisan actors at lower levels of government are able to negatively impact the effects of federal policies or strategically undermine public goods (Sances, 2017). Voters may not be able to recognize which actors are responsible for specific changes in the crises that impact their lives.

Significant scholarly debate exists in both the political accountability and policy feedback literatures for how much of a problem federalism poses in these regards. Theoretically, federalism is the kind of political institution known to impact how well voters are able to hold political actors accountable for the things they are ultimately responsible for (Powell and Whitten, 1993). Empirically, countless studies document the many ways federalism blurs voters abilities to respond to crises and negative changes in their lives more generally. For example, because Americans often know little about what state and local governments do (Carpini and Keeter, 1996), voters tend to evaluate and hold accountable state legislators based on their more general evaluations of the president (Rogers, 2017). Even more curiously, voters tend to blame the president for policies the voters enact themselves via direct democracy (Sances, 2017). These studies suggest that presidents are often held accountable for the decisions of political actors at lower levels and that political actors at lower levels are unlikely to be held accountable for their own performance or actions. As a result, in the matter of local hospital closures, *we may expect a local hospital closure to reduce support for the president but not other more local political actors, even if the local actors were more directly responsible*—as is the case in the hospital crisis.

- **H1:** *Hospital closures will lead to decreased support for the incumbent president's party.*

Other empirical studies have provided reason for optimism for the ability of voters to function and respond appropriately to these changes in a federalist system. Arceneaux (2006), for example, finds that voters generally hold the correct politicians accountable for their job functions if that information is made accessible or salient to them. Similarly, Stein (1990), finds that voters tend to hold governors responsible for state economic performance. Other scholars have found that voters generally hold incumbents at all levels of government responsible for changes in their local economy (de Benedictis-Kessner and Warshaw, 2020), suggesting we may observe local level accountability as well, especially if a crisis like the hospital crisis was salient or accessible to voters. Moreover, we know from other work that the health inequalities produced by state Medicaid differences are stark and deeply meaningful, especially for the people affected by the program (Michener, 2018). As a result, we might expect voters to observe and consider who is responsible for their lived experiences. According to this perspective, *we would expect the hospital crisis to cause voters to blame*

local incumbents for declining local health conditions.^{6, 7}

- **H2:** *Hospital closures will lead to decreased support for incumbent local politicians.*

In addition to these general predictions, we also have ample reason to expect that partisanship will complicate the confusing task of assigning blame in a federalist system. Partisanship is a central predictor of voting behavior generally (Campbell et al., 1960; Bartels, 2000). As such, partisanship has been shown to affect evaluations of the political system in a variety of contexts, politician performance at different levels of government, and even the relevant, objective facts of the political world (Eggers, 2014; Lodge and Taber, 2013; Brown, 2010; Bartels, 2002). More relevant to this specific case, partisanship has also been shown to condition how individuals respond to personal and public health circumstances. From personal safety during pandemics to whether to get health insurance (Kushner Gadarian et al., 2020; Kim et al., 2020; Clinton and Sances, 2020; Lerman et al., 2017), partisanship is likely to play an important and conditioning role in rural voters' responses to hospital closures.⁸ As a result, *we might expect partisanship to moderate the effects of the hospital crisis*, with Republicans and Democrats responding differently, potentially depending on which party is in control of a particular level of government when the hospital crisis hits a community (Brown, 2010)), and independents responding more consistently with the general accountability and policy feedback predictions.

- **H3a:** *Hospital closures will have the largest effects on independent voters.*
- **H3b:** *The partisan attachments of voters will moderate hospital closure effects, leading to smaller effects for partisans.*

5.3 Data and Method

To analyze the effects of access to health care on political accountability and policy feedback, I focus, as I have mentioned, on the shock of experiencing a hospital closure in one's community. While demographic differences between urban and rural areas explain why rural areas are more vulnerable to experiencing these shocks (e.g. rural places tend to be older and less healthy Lindrooth et al. (2018); Wishner et al. (2016); Kaufman et al. (2016); Carr and Kefalas (2009)) most rural hospitals in non-expansion states face similar risks of closure (Chartis, 2020). As a result, conditional on observable differences in the kinds demographic

⁶Indeed, some work shows that this may be more a question of degree than dichotomy (Malhotra and Kuo, 2008).

⁷Though not directly meant to provide optimism for political accountability, work by Dynes and Holbein (2019) and Grossman (2019), which find that changes in partisan control of state governments do not lead to meaningful changes in policy or life outcomes, suggests that we may not observe accountability at the state or local levels because these governments are not producing meaningful changes in voters lives.

⁸Partisanship has even been shown to condition how voters respond to natural disasters that threaten their property and lives (Heersink et al., 2020).

variables known to influence rural hospital financial well-being (e.g. the health of the population, population income, etc), exactly which rural hospitals ultimately close and, thus, which rural voters lose their access to health care is quasi-random.

For my analyses, I gather data on hospital closures from the University of North Carolina Sheps Center. The Sheps Center provides the location and timing of every hospital closure in the US since 2005. With these data, I extract information on the location of each hospital closure and when the closure occurred. For my purposes here, I focus on the closures that occurred from 2010-2018—the closures more plausibly connected with the politics of the ACA (Kaufman et al., 2016). I further restrict my sample to only the closures in Republican and non-Medicaid expansion states, to improve my ability to answer the theoretical questions of interest. Next, I aggregate the available geospatial data of each hospital closure to the county level and defined a unit as being treated if a hospital closure occurred in that county or if that county bordered a county that lost a hospital and did not have hospital of its own at the time—since these communities also lost one of their only health care providers. These closure counties are where people are most likely to have directly experienced the shock of a hospital closure on their access to care.

Defining a control group, however, is a bit more difficult. We may naturally want to compare individuals in counties with and without hospital closures. Looking at the averages in Table 5.1, and specifically in the “Closure” column and the “Control (Before)” column—the latter of which includes all non-closure counties—reveals that these two groups of counties are very different. As mentioned previously, counties that have experienced hospital closures tend to be more rural, poorer, and have lower quality health (as measured by the percentage of the population that is in poor health and uninsured) than the full sample of all non-closure counties. To help construct a more comparable control group, I collect data at the county-level for all US counties on their demographic characteristics from the US Census and information on their health care infrastructure and well-being from the Robert Wood Johnson Foundation.⁹

I pre-process these data using the MatchIt package in R (Stuart et al., 2011). Specifically, I use the program to predict treatment eligibility (being affected by a hospital closure between 2010-2018) using nearest-neighbor matching as a function of a county’s population, percentage of the population that is white, median income, percentage of the population that has less than a high school education, percentage of the population that is college educated or above, the percentage of the population that is uninsured, and the percentage of people in the county in poor or fair health. In other words, counties that experienced a hospital closure are matched to the most similar rural counties that did not experience hospital closures from 2010-2018. This pre-processing step ensures that I am comparing the most similar units as possible to assess the effects of hospital closures.

⁹See Appendix A1 for details on data sources.

Table 5.1 reports the results of this data pre-processing step. Column 1 (“Variable”) lists the variable name used in the matching algorithm. As referenced above, Column 2 (“Closure”) provides the treatment group means for the counties that experienced hospital closures between 2010 and 2018. Column 4 (“Control (After)”) lists the means for the matched most similar rural counties that did not experience hospital closures between 2010 and 2018. Again, Column 3 (“Control (Before)”) provides the naive control group means—the means for the over 3000 counties in the US that did not experience a hospital closure. Column 5 reports the mean difference between the treatment and matched control group. Finally, Column 6 (“% Improvement”) provides a balance improvement statistic metric created by the MatchIt program describing the improvement in comparability of the treatment and control groups in that variable after data pre-processing.

Across the table, we see significant gains in the comparability of the treatment and control units. Overall, there are very minimal differences between the treatment and control counties in terms of population, racial composition, educational attainment, economic fortunes, and health care conditions. These results suggest that once basic demographic differences are accounted for closure and non-closure counties are very similar and vary quasi-randomly.¹⁰ I plot the geographic location of the final matched sample in Figure 5.4. With these data, I first perform county-level election analyses, with change in the Democratic two party vote from 2012-2016 as the outcome variable.

Table 5.1: Comparison of Treatment, Matched-Control, and All-Control Counties

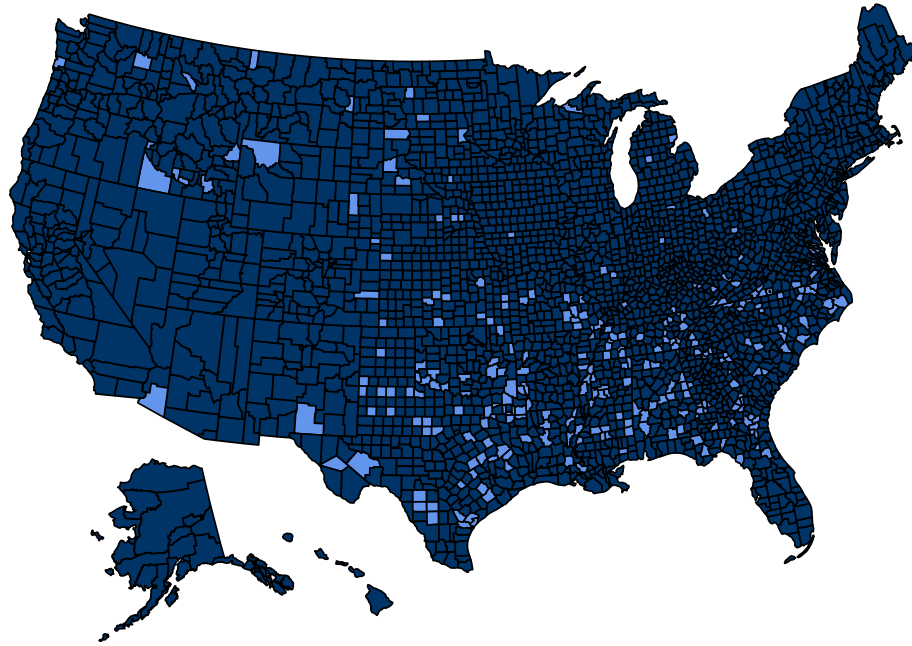
Variable	Closure	Control (Before)	Control (After)	Diff	% Improved
Population	23841.3	106234.8	23216.5	624.7	99.9
% White	75.9	83.4	75.2	0.6	99.2
% Less than HS	18.2	13.2	18.5	-0.3	91.2
Median Income	42154.6	51979.3	42431.1	-276.6	93.3
%College +	15.6	21.8	15.4	0.2	97.2
% in Poor or Fair Health	21.0	17.3	20.9	0.0	97.3
% Uninsured	15.6	11.8	15.5	0.1	97.0

Comparison of Treated and Non-treated Counties after Matching. In total, the MatchIt algorithm created a matched sample of counties (closure counties and the most similar rural counties).

Additionally, I use these county-level data to geolocate survey respondents from the 2010-2018 waves of the CCES to compare individuals who experienced a hospital closure prior to taking the survey, with otherwise similar respondents, living in otherwise similar communities, who have not experienced a hospital closure. The 2010-2018 CCES waves interviewed 6049 survey respondents residing in the treatment and matched-control counties. Of this total, roughly 30% of the respondents experienced a hospital closure prior

¹⁰I cannot fully rule out other potential confounding factors that may systematically contribute to treatment status based on this pre-processing step alone. However, the geographic variation of closures paired the nearly universally precarious nature of rural hospital finances, suggest the “shock” could plausible occur in any of these units, with only randomness affecting which ones ultimately experience the closure.

Figure 5.4: Study Sample of Closure Affected and Matched Peer Communities



Counties in Light Blue are included in the empirical analyses. These are all GOP and Non-expansion state hospital closure impacted areas and matched peer counties using MatchIt.

to taking the survey (the final treatment group for the analyses below). The other 70% of the respondents resided either in a matched control county or reside in counties that later experienced a hospital closure, but had not at the point in time when the respondent was interviewed for the CCES.¹¹ In Appendix 1 Table 9.3 I show that the balance obtained in the county-level matching also holds at the individual level on many demographic covariates for this sample. Roughly 45% of the sample is Republican, 20% independent, and 35% Democratic.

I focus on two outcome measures from the CCES to assess political accountability in the rural hospital crisis: presidential and gubernatorial vote choice. These choices are meant to capture whether voters attribute

¹¹Results are robust to including either just control respondents or both untreated groups.

blame to national or local political elites. The inclusion of presidential vote choice reflects the presidents' central position in previous studies of political accountability in the US (Sances, 2017; Rogers, 2017; Achen and Bartels, 2016). The choice of gubernatorial voting was a bit less clear. In this context, the governors in question also had significant roles in shaping whether or not hospital closures occurred in their states via their state's Medicaid expansion decision. As a result, governors are the exact kinds of actors who should be held responsible for local hospital closures. The inclusion of gubernatorial vote choice also reflects a desire to test for lower levels of political accountability, along side the more typical studies of accountability in presidential elections. I could, of course, assess the relationship of hospital closures on state legislative or congressional elections. However, doing so would lead to many cases where two groups of respondents who are being compared, even within the same state, are actually voting in very different electoral contests. As a result, looking simply at gubernatorial vote choice allows me to hold constant the electoral choice within state via state fixed effects.

In addition to these outcome measures, I analyze the impact of hospital closures on a number of potential mechanistic explanations for how hospital closures influence vote choice, including presidential and gubernatorial approval as tests face validity. If hospital closures affect voting for president or governor, they ought to also affect presidential and gubernatorial approval. Additionally, I assess whether respondents update their assessments of the performance of the economy following hospital closures. Finally, I examine whether attitudes towards the ACA are influenced by local closures. Each of these questions allow me to further probe how voters process and respond to local health care issues and ultimately make accountability judgements.

5.3.1 Identification Strategy and Observational Analyses

To analyze the causal effect of losing access to health care via rural hospital closures on the 2016 election, I rely on a *difference-in-differences* estimation strategy, on a matched county-level sample. I estimate the change in the Democratic Party's two party share of the vote from 2012 to 2016 on an indicator for whether the community experienced a hospital closure or not (1 or 0) between 2012 and 2016. This *first-difference* strategy reveals the causal effect of a hospital closure on voting, in part, if the treatment and control groups experienced "parallel trends" in the outcome variable (Democratic Vote) prior to the treatment. These parallel trends would yield support for the fact that, conditional on the observables used in the matching procedure, closure and non-closure counties vary as-if randomly from each other. In Figure 9.4 in Appendix 3, I show that this is indeed the case. From 2004-2012, rural closure counties and the matched sample of rural control counties experienced similar trends in voting prior to experiencing the treatment, suggesting that in the absence of the closure the two types of communities would have continued to have similar voting outcomes. Moreover, as I demonstrated in Table 5.1, treated and control units were also essentially identical in other

observable confounders. Finally, I also include state fixed effects and demographic controls to further rule out confounding factors.

In addition to this county-level *difference-in-differences* strategy, I provide time-series cross-sectional observational analyses comparing the voting behavior and political attitudes of individuals who have experienced hospital closures in their communities with matched similar individuals who have not. These analyses reassure us that the county-level results are not driven by ecological inference issues and allow me to explore the heterogeneous hypotheses of interest (i.e. how the partisanship of the voters moderates the effects of changing access to care). Additionally, with this analysis, I am better able to probe plausible causal mechanisms at the individual level.

5.4 Presidential Voting in the Rural Hospital Crisis

I begin with the county-level *difference-in-differences* results. The empirical model takes on the following form:

$$\Delta DemocraticVote_c = \beta HospitalClosure_c + \alpha_s + \tau_c + \varepsilon_i \quad (5.1)$$

,where $\Delta DemocraticVote_c$ is the change in the Democratic two party vote from 2012 to 2016, $\beta HospitalClosure_c$ is indicator for whether the county was affected by a hospital closure between 2012 and 2016, α_s represents state fixed effects, τ_c are county level demographic controls, and ε_i is idiosyncratic error. Results are presented in Table 5.2.¹²

Table 5.2: County Level Treatment Effect Estimates

	<i>Dependent variable:</i>	
	Δ Democratic Vote (2012-2016)	
	(1)	(2)
Hospital Closure	-0.892** (0.393)	-1.038*** (0.376)
Constant	-3.877*** (0.707)	-11.429*** (2.957)
State Fixed Effects	✓	✓
Controls		✓
Observations	250	250
R ²	0.608	0.678
Adjusted R ²	0.553	0.623
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

¹²Full regression results are Appendix 3.

The county-level results in Table 5.2 suggest that rural communities that were affected by hospital closures between 2012 and 2016 shifted their support roughly 1 percentage point away from the Democratic Party and in favor of Donald Trump relative to similar rural communities that did not experience hospital closures during the period. These results imply that changing access to health care (i.e. experiencing a closure) has a substantively significant and causal influence on presidential voting. Even though Republicans at the state level likely caused these worsening health conditions, Donald Trump *gained* support in areas affected by local hospital closures, suggesting that rural voters hold the president responsible for changes in their access to health care—potentially regardless of responsibility or proposed policy solutions.

Next, I estimate the association between hospital closures and presidential voting on rural voters in the 2012 and 2016 presidential elections. To test the hypotheses related to partisan heterogeneous effects, I allow the estimated influence of hospital closures to vary by the partisanship of the respondent. As a result, the baseline estimate of a hospital closure is the estimated relationship for independents. With these goals in mind, I estimate a linear probability model of candidate choice of the following form:

$$Y_i = \beta HospitalClosure_c + \alpha Democrat_i + \tau Republican_i \quad (5.2)$$

$$+ \zeta(HospitalClosure_c * Democrat_i) + \delta(HospitalClosure_c * Republican_i) \quad (5.3)$$

$$+ \gamma_i + \kappa_s + \varepsilon_i \quad (5.4)$$

, where Y_i is the probability an individual votes for the Republican (non-incumbent) presidential candidate over the Democratic candidate, $\beta HospitalClosure_c$ is an indicator variable that represents whether or not a respondent lives in a county that has experienced a hospital closure in the past. $\alpha Democrat_i$ and $\tau Republican_i$ are indicators for a respondents' partisanship.¹³ I also include the interaction terms “ $\zeta(HospitalClosure_c * Democrat_i)$ ” and “ $\delta(HospitalClosure_c * Republican_i)$ ” to test for partisan conditional effects. γ_i includes a series of individual-level covariates (gender, race, education, income). Finally, κ_s are state-level fixed effects. The inclusion of these state fixed effects means that coefficient $\beta HospitalClosure_c$ represents the estimated effect of a hospital closure on independents within a given state. As a result of this modeling decision and the overall structure of the data, we can be confident I am comparing the most similar respondents, in the similar most rural communities within similar states—ruling out many confounding factors.¹⁴

In Table 5.3, I estimate this model on presidential voting in 2012 (Column 1) and 2016 (Column 2) separately.¹⁵ Recall, most of the politically-caused closings did not start occurring until 2013 and that closure

¹³Partisan leaners are coded as partisans given their nearly identical voting behavior (Keith et al., 1986).

¹⁴ ε_i represents idiosyncratic error.

¹⁵Full regression results are in Appendix A3 Table 9.6

and non-closure communities did not differ politically from 2004-2012. As a result, we may not expect to observe associations in 2012, but we should in 2016. Indeed, this is exactly what we see. In 2012 (Column 1), we see no evidence for independents, Republicans, or Democrats that hospital closures experienced between 2010 and 2012 altered voting behavior. Not only do the estimated relationships not reach traditional levels of statistical significance, they are also substantively small. We, however, see much stronger and much more substantively interesting results in 2016.

Table 5.3: Presidential Voting Regression Results (by year)

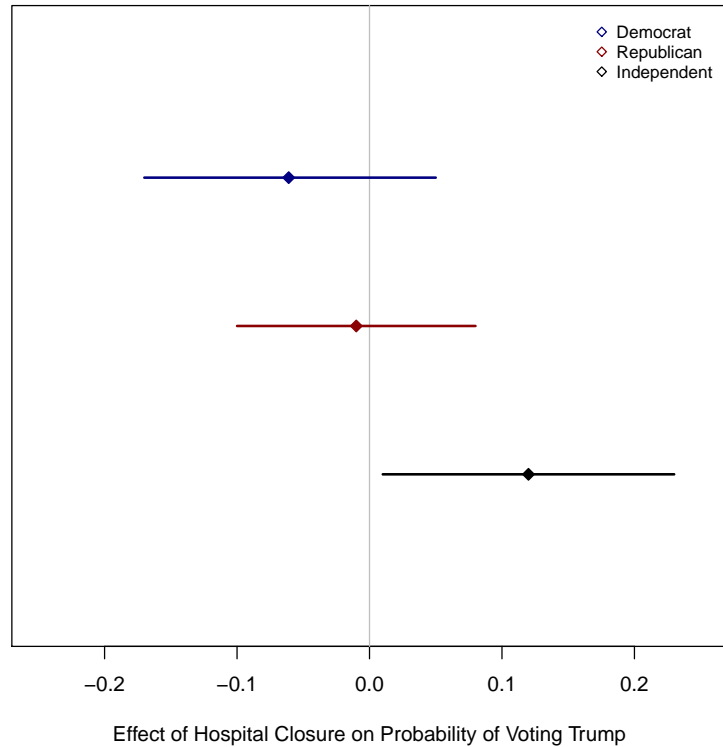
	<i>Dependent variable:</i>	
	Voted Romney over Obama (1)	Voted Trump over Clinton (2)
Hospital Closure	0.035 (0.201)	0.115* (0.068)
Hospital Closure*Democrat	-0.086 (0.258)	-0.176** (0.078)
Hospital Closure*Republican	-0.132 (0.242)	-0.126* (0.075)
Constant	0.506*** (0.112)	0.780*** (0.090)
State Fixed Effects	✓	✓
Observations	314	502
R ²	0.742	0.733
Adjusted R ²	0.711	0.713

Note: *p<0.1; **p<0.05; ***p<0.01

Drawing on Column 2 of Table 5.3, Figure 5.5 graphically displays the estimated marginal effect of a hospital closure for independents, Republicans, and Democrats in the 2016 election. For rural independents, experiencing a hospital closure increases a respondent’s probability of voting for Donald Trump (or against the incumbent Democratic president’s party) by 11 percentage points. This magnitude of this effect is roughly one-eighth the size of the estimated relationship between partisanship and support for Trump ¹⁶, a substantively massive effect given the overall declining relevance of localized events on voting behavior (Hopkins, 2018). Moreover, because independents comprise a comparatively smaller share of the electorate (10-15%) relative to Republicans and Democrats (85-90%), this large relationship is nearly identical to the county-level results obtained previously ($\beta_{Hospital} (Independents) \times \text{Percent of Independents} \approx \beta_{Hospital} (\text{County}) \approx 0.11 \times 0.15 \approx 0.0165 \approx 0.011$).

¹⁶($|\beta_{Democrat}| + |\beta_{Republican}| \approx 0.80$ for non-treatment observations and $\frac{\beta_{HospitalClosure}}{0.8} \approx \frac{1}{8}$)

Figure 5.5: Marginal Effect of Hospital Closure on Support for Trump by Partisanship



For rural Democrats and Republicans, however, hospital closures do not appear to be significant enough forces to alter their underlying partisan voting preferences. Hospital closures did not make rural Republicans or Democrats any more (less) likely to vote against the incumbent party in the 2012 or 2016 presidential elections. Although, the imprecisely estimated relationship for Democrats suggests that Democrats experiencing closures were slightly more likely to support Clinton than their co-partisan peers not experiencing closures. These results suggest that despite the drastic public health and economic effects of the hospital closures in their communities (Wishner et al., 2016; Holmes et al., 2006), partisans do not react positively or negatively to changes in their access to health care.

5.5 Gubernatorial Election Analyses

Next, I investigate whether voters held Republican governors accountable for the hospital closings that occurred in their communities. State Republican officials, though not only governors, played important roles in the onset of these closures due to their decisions not to expand Medicaid. To probe these more local electoral effects, I must slightly augment the estimation strategy from the previous section to deal with one of the pri-

many hurdles to gubernatorial accountability in the first place: the staggered timing of gubernatorial elections. Only eleven states held their gubernatorial elections during the 2012 and 2016 presidential elections years, while thirty-four other states are slated to hold their next gubernatorial elections in 2022. Of my sample of states that experienced hospital closings, most held gubernatorial elections in 2014 and 2018.¹⁷ Off these more normal cycles of elections, Kentucky and Mississippi held gubernatorial elections in 2015 and 2019, Missouri and North Carolina held theirs in 2012 and 2016 and Virginia held elections in 2013 and 2017.

Further complicating this factor, many CCES respondents were surveyed during years in which gubernatorial elections were not held in their state. To account for these complications, I estimate gubernatorial election results separately for 2014, 2016, and 2018. I also pool the data from the 2010-2018 to estimate the association of local hospital closures on approval for Republican governors. Like the models of presidential vote choice, I include state fixed effects to ensure I am assessing the effects of hospital closings on similar rural residents who are voting in the same gubernatorial election. I also include the same battery of demographic controls used in the previous section. The dependent variable is the probability an individual votes for the Republican gubernatorial candidate over the Democratic candidate. In Table 5.4, I display the results from a series of regression analyses on gubernatorial vote choice and approval.¹⁸

Table 5.4: Individual Level Gubernatorial Election Results

	<i>Dependent variable:</i>			
	Voted GOP for Governor			Governor Approval
	(2014)	(2016)	(2018)	(Pooled)
Hospital Closure	0.121 (0.112)	-0.077 (0.142)	-0.062 (0.071)	0.134 (0.103)
Hospital Closure*Democrat	0.101 (0.148)	0.025 (0.160)	-0.026 (0.083)	-0.163 (0.124)
Hospital Closure*Republican	-0.205 (0.128)	0.129 (0.161)	0.027 (0.076)	-0.137 (0.118)
Constant	0.736*** (0.153)	0.878*** (0.199)	0.613*** (0.083)	2.127*** (0.146)
State Fixed Effects	✓	✓	✓	✓
Observations	200	135	526	4,146
R ²	0.612	0.704	0.695	0.114
Adjusted R ²	0.556	0.664	0.679	0.104

Note: *p<0.1; **p<0.05; ***p<0.01

Overall, I find no consistent evidence that rural voters of any partisan stripe hold Republican governors accountable for local hospital closings. In columns 1-3 of Table 5.4, I show that the estimated marginal effects of hospital closures on the probability of voting for the Republican candidate for governor is never

¹⁷AL, AZ, FL, GA, IL, KS, MA, ME, MI, MN, NE, NV, NY, OH, OK, PA, SC, SD, TN, TX, and WI all held elections these years.

¹⁸Full regression results are in Appendix A4 Table 9.8.

consistently signed or statistically significant for Democrats, Republicans, and independents. Additionally, none of the estimated associations for these groups meet traditional levels of statistical significance. In column 4, I show that hospital closures did not make rural residents any more or less likely to approve of their Republican governor either. These results suggest that rural voters do not reward or punish Republican gubernatorial candidates or incumbents for the hospital closures that occurred in their communities—even though these closures are largely due to state government Republican decisions not to expand Medicaid. Overall, the results in this section and the previous one provide support for hypotheses related to presidential-centered and partisan accountability for changing access to health care via local hospital closures.

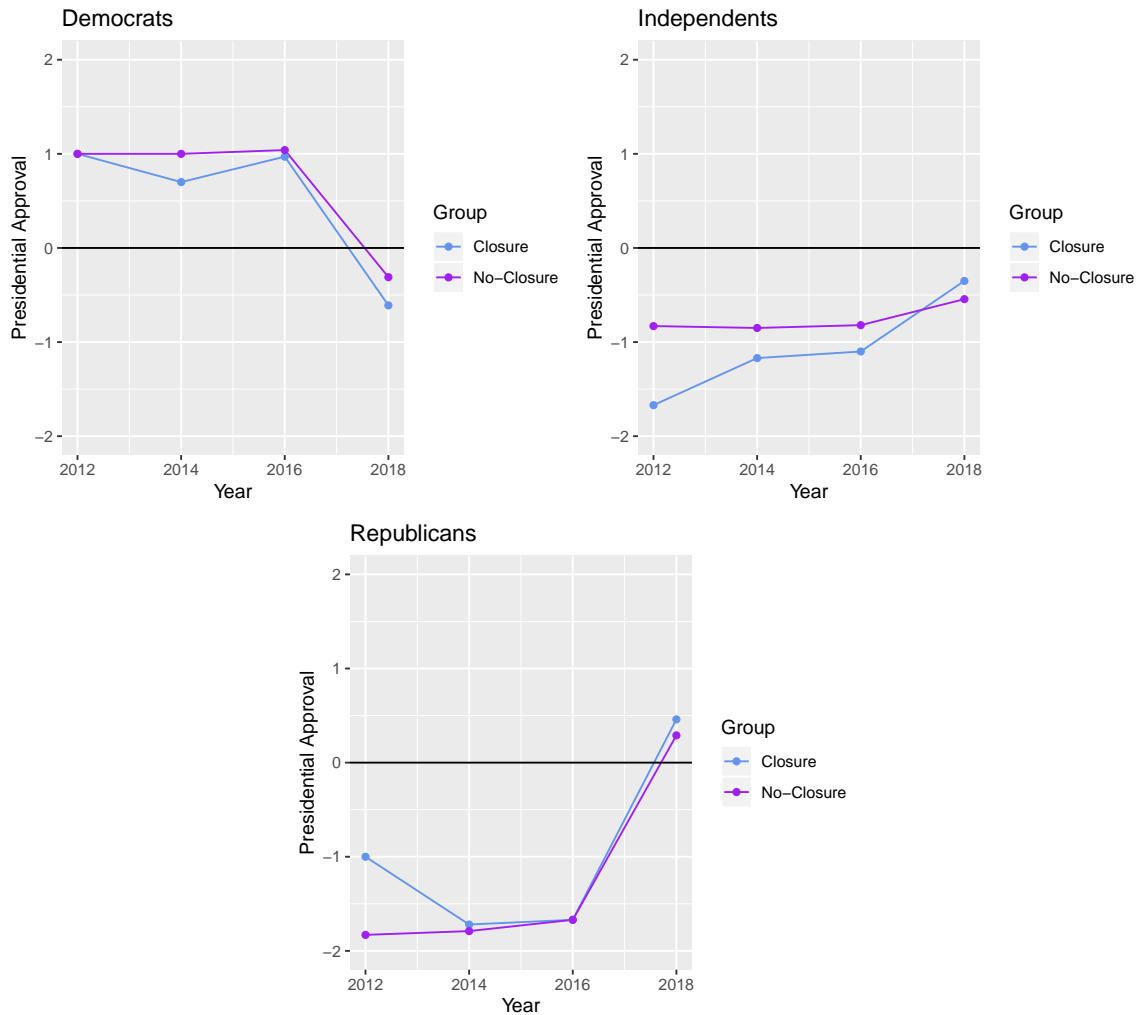
5.6 Discussion of Mechanisms

To better understand how rural hospital closings impact groups of voters differently, as well as to probe how confident we can be that the “treatment” of a hospital closure is actually affecting voters in the ways I have argued, I explore multiple mechanistic paths for the influence of hospital closures on vote choice. The previous literature often characterizes the path between negative external forces, like community hospital closures and vote choice, as first impacting voters’ evaluations of politician performance and the overall state of the economy and the world around them (Ashworth, 2012; Fiorina, 1981). In other words, the voter observes the state of the world and updates their views of it and the politician’s performance that gave (may have given) rise to it.¹⁹ Moreover, we know from Michener (2018) and Campbell (2014) that variation in the quality of social assistance and health programs influences patterns of policy feedback. As a result, we might expect these negative health experiences to have domain specific effects on individuals attitudes towards health policy and reform, which in turn may affect their voting behavior. Given the connection between the ACA/Medicaid Expansion and these closings, attitudes toward the ACA seem likely to also be influenced by local hospital closures.

To assess whether rural hospital closures impact voter evaluations of politician performance, I first plot presidential approval trends from the same set of CCES (2010-2018) respondents in treated and untreated counties for Independents, Democrats, and Republicans from 2012-2018 in Figure 5.6. Overall, the plots show that, consistent with the voting results, independents in closure communities have lower levels of presidential approval than independents in similar non-closure communities, though this relationship is less clear in 2018. Democrats and Republicans in closure and non-closure communities do not vary in their presidential approval and simply flipped approval ratings once President Obama left office and President Trump entered.

¹⁹Some have characterized this process as one of “musical chairs,” where voters throw out incumbents without much thought of their plans to handle or responsibility for the crisis. Incumbents are thus occasionally tossed out of office when things go poorly and sometimes even replaced by elites ill-suited or unwilling to handle the crisis at all (Achen and Bartels, 2016).

Figure 5.6: Presidential Approval Trends by Hospital Closure Status and Partisanship

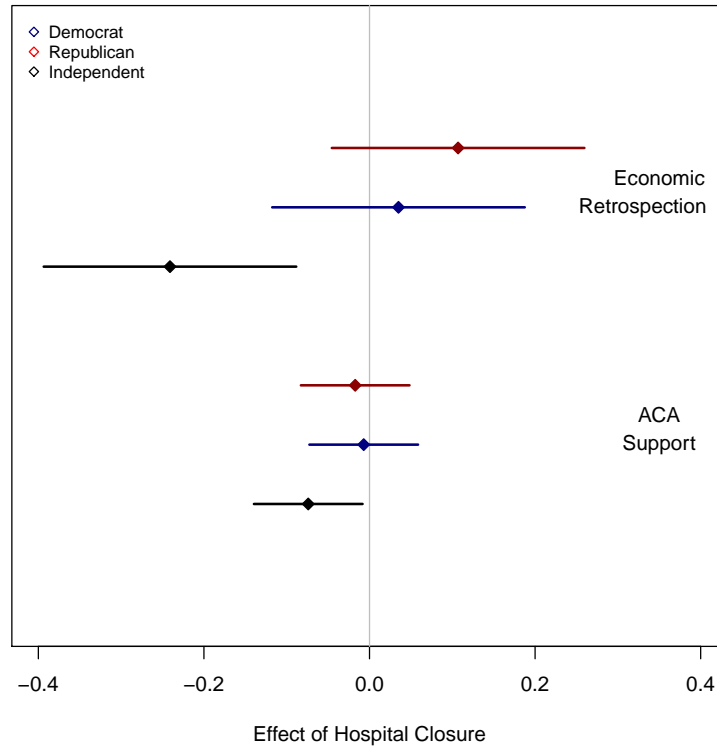


To examine whether retrospective economic evaluations and health care attitudes are altered by hospital closures, I use the CCES (2012-2016) respondents' answers to questions on their retrospective evaluations of the national economy (measured 1 to 5, with 1 being worse off economic evaluations) and support for the ACA (measured dichotomously, with 1 being more supportive) as dependent variables. I estimate OLS models taking on the same form as the ones in prior sections, this time including year fixed effects to account for year-to-year shocks to the pooled data. In Figure 5.7, I graphically display the marginal effects of a hospital closures on performance evaluations and support for the ACA for independents, Republicans, and Democrats separately.²⁰

Consistent with classic retrospective accounts (Fiorina, 1981), the top row of Figure 5.7 shows independents experiencing local hospital closures viewed the economy to be much worse than independents who did

²⁰Full regression results are in Appendix A2.

Figure 5.7: Marginal Effect of Hospital Closure on Economic Evaluations and Support for the ACA



not experience hospital closures. However, it is independents alone who have their economic perceptions altered by hospital closures. Consistent with work on partisan bias in economic evaluations (Bartels, 2002), Republicans and Democrats do not appear to have their perceptions of the economy altered by local hospital closures.

Interestingly, we can see in the bottom row Figure 5.7 that independents experiencing a local hospital closure also had their attitudes toward the ACA affected by these negative experiences. Independents affected by a local hospital closure were roughly 5% less likely to support the Affordable Care Act than similar independent voters not experiencing a hospital closure. Partisan evaluations of the ACA, however, seem to be unable to be moved by hospital closures. Consistent with work on the impact of partisanship on ACA evaluations (Clinton and Sances, 2020), Republicans and Democrats did not update their views of the ACA in light of experiencing local hospital closures.

These findings only amplify the perverse nature of the accountability problems uncovered in the electoral analyses. Independents who experienced a local hospital closure under the ACA—as a result of state level Republican refusal to expand Medicaid under the ACA—became *less* supportive of the ACA overall and of

the incumbent Democratic president, even though Republican state politicians were ultimately responsible for the closures due to preventing the full adoption of the ACA. These results imply the Republicans benefited electorally at the federal level and were unaffected at the state level for actively harming their own constituents' health care.

5.7 Conclusion

In this paper I have explored the political causes and consequences of the widespread rural health care access crisis. Since 2005, many rural communities have lost their hospitals, greatly limiting their access to doctors and medical care. I have argued that partisan politics has played an increasingly important role in the both the patterns of hospital closings and the resulting lack of political accountability we have observed. Since 2010, most rural hospital closures have occurred in states with Republican governors that have not expanded Medicaid under the Affordable Care Act. Despite this, my analyses show that rural independent voters who experienced a hospital closing directly were *more* likely to support Donald Trump in the 2016 presidential election than otherwise similar rural voters who did not experience a hospital closure.

Indeed, despite the misguidedness and strategic nature of Senator Graham's remarks in the quote presented at the beginning of this manuscript, independent voters updated their political beliefs much in manner the Senator argued that they should. Rural independents responded to hospital closures in their communities by perceiving the economy to be worse off, lowering their support for the ACA, and by voting against the incumbent Democratic presidential ticket. Rural independents responded in this way even though their hospitals closed due local Republican resistance to the ACA. Rural partisans, however, did not respond in the same way. Democrats and Republicans, alike, did not have their voting behaviors, ACA attitudes, or economic evaluations altered by local hospital closings. Whether conditions worsened or not, partisans supported their own side.

Finally, I find no evidence that Republican governors or gubernatorial candidates were held responsible for rural hospital closings. Independents and partisans did not evaluate their incumbent governors any worse (or better) off after hospital closings and were not any more (or less likely) to vote for the incumbent governor following a hospital closing in their community. Given that the governors and other state officials played important roles in shaping where rural hospitals have closed, these results paint a troubling picture for political accountability and policy feedback in the realm of rural health care.

In line with other recent work (Sances, 2017; Rogers, 2017), my findings demonstrate the voters often hold the president and not more proximate elites accountable for things that impact their communities. I build on this work by demonstrating that similar dynamics emerge even when voters are responding to hyper-localized and community destabilizing public health and economic crises. These findings also contribute

to recent studies on the nationalization of US politics. While prior work has demonstrated that the effects of local context and local events on US elections are diminishing (Hopkins, 2018), these results provide additional evidence as to why: partisans (at least these rural partisans) remain entrenched in response to changes in their local environments. The result of this dynamic is an increasingly small pool of non-partisan voters reacting to and hold politicians accountable for their actions. However, these voters tend to do so with only vague retrospective evaluations of how well things are going on around them or why things are getting worse, reacting instead by blindly blaming the incumbent president (Achen and Bartels, 2016).

More work is needed to assess the degree to which things like experiencing negative public health crises and other forms of denials of access to care affect political behavior more generally. For example, following waves of hospital closures in their states, voters in Missouri, Nebraska, and Oklahoma bypassed their Republican state governments by expanding Medicaid via ballot initiative. These cases offer chances to analyze how hospital closures affect voting behavior when partisan voting options are no longer present and voters can directly vote their health care preferences. Do partisans and independents still behave differently if their communities were affected by the crisis? Additionally, more work is needed on how experiencing public health crises impact voters' health care attitudes and healthcare demands from government more generally. While these findings demonstrate the incumbents are held accountable, these negative health experiences may also contribute to longer-term declines in support for government assistance. Future research is needed to disentangle short-term anti-incumbent effects from longer-term anti-government attitude development.

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CHAPTER 6

Chapter 2 Appendix

6.1 Data Sources and Descriptive Statistics

This section reports the descriptive statistics and primary data sources used within the text. This chapter uses survey data from the American National Election Studies (ANES) and the Cooperative Congressional Election Study (CCES). To measure health care attitudes in the ANES, I rely on two measures from the ANES Cumulative File: VCF0805 and VCF0806. VCF0805 (Government Assistance with Medical Care) reads:

Around election time people talk about different things that our government in Washington is doing or should be doing. Now I would like to talk to you about some of the things that our government might do. Of course, different things are important to different people, so we don't expect everyone to have an opinion about all of these. I would like you to look at this card as I read each question and tell me how you feel about the question. If you don't have an opinion, just tell me that; if you do have an opinion, choose one of the other answers. 1956,1960: 'The government ought to help people get doctors and hospital care at low cost.' ; 1962: 'The government ought to help people get doctors and hospital care at low cost.' Do you have an opinion on this or not? (IF YES:) Do you agree that the government should do this or do you think the government should not do it.; 1964,1968: Some say the government in Washington ought to help people get doctors and hospital care at low cost; others say the government should not get into this. Have you been interested enough in this to favor one side over the other? (IF YES) What is your position?

VCF0806 (Government Health Insurance Scale) reads as follows:

There is much concern about the rapid rise in medical and hospital costs. Some (1988,1994-LATER: people) feel there should be a government insurance plan which would cover all medical and hospital expenses (1984 AND LATER: for everyone). (1996,2004: Suppose these people are at one end of a scale, at point 1). Others feel that (1988,1994-1996: all) medical expenses should be paid by individuals, and through private insurance (1984 AND LATER: plans) like Blue Cross (1984-1994: or [1996:some] other company paid plans). (1996,2004: Suppose these people are at the other end, at point 7. And of course, some people have opinions somewhere in between at points 2,3,4,5 or 6.) Where would you place yourself on this scale, or haven't you thought much about this? (7-POINT SCALE SHOWN TO R)

The CCES asked respondents about their health care insurance experiences, I use these items to measure individual level health insurance status. To measure support for government health insurance, I use Angelo Dagonel's (2021) "Cumulative CCES Policy Preferences." . Specifically, I use his dichotomous aggregation method to cull the differently worded survey items over the years related to support for the ACA and support for repealing the ACA to create a yearly variable for respondents' support of the ACA. Table 7.1 provides descriptive statistics for the rural white CCES data from 2018. Similar demographics emerge for the other CCES years.

Table 6.1: Descriptive Statistics for the CCES Rural White Sample (2018)

Statistic	N	Mean	St. Dev.	Min	Max
Age	21430	50	17.7	18	95
Female	21430	0.57	0.49	0	1
Democrat	21403	0.35	0.48	0	1
Republican	21403	0.46	0.50	0	1
Racial Resentment	18685	6.9	2.6	2	10
ACA Support	21408	0.5	0.5	0	1

6.2 CCES Analyses

Here, I present the full regression results from CCES samples of rural whites respondents.

Table 6.2: Partisanship and Support for Government Health Insurance

	<i>Dependent variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
Democrat	0.317*** (0.009)	0.459*** (0.008)	0.427*** (0.007)	0.364*** (0.008)
Republican	-0.319*** (0.009)	-0.220*** (0.007)	-0.207*** (0.007)	-0.287*** (0.008)
Family Income	-0.0003*** (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0003*** (0.0001)
Education	-0.002 (0.002)	0.028*** (0.002)	0.023*** (0.002)	0.020*** (0.002)
Female	0.063*** (0.006)	-0.001 (0.006)	-0.004 (0.005)	0.039*** (0.006)
Constant	0.513*** (0.011)	0.201*** (0.009)	0.236*** (0.009)	0.425*** (0.010)
Observations	17,694	18,476	20,952	21,264
R ²	0.353	0.406	0.349	0.359
Adjusted R ²	0.352	0.406	0.349	0.358

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6.3: Partisanship, Racial Resentment, and Support for Government Health Insurance

	<i>Dependent variable:</i>	
	ACA Support	
	(2012)	(2018)
Racial Resentment	-0.048*** (0.002)	-0.054*** (0.001)
Democrat	0.248*** (0.010)	0.271*** (0.009)
Republican	-0.273*** (0.009)	-0.214*** (0.008)
Family Income	-0.0003*** (0.0001)	-0.0003*** (0.0001)
Education	-0.015*** (0.002)	0.005*** (0.002)
Female	0.056*** (0.006)	0.035*** (0.006)
Constant	0.927*** (0.018)	0.846*** (0.015)
Observations	15,833	18,640
R ²	0.402	0.437
Adjusted R ²	0.402	0.437

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6.4: Rural White Support for the ACA, CCES (2012)

<i>Dependent variable:</i>			
ACA Support (2012)			
	(Government)	(None)	(Private)
Democrat	0.308*** (0.016)	0.254*** (0.025)	0.342*** (0.013)
Republican	-0.323*** (0.015)	-0.255*** (0.025)	-0.326*** (0.013)
Family Income	-0.0003** (0.0002)	-0.008* (0.004)	-0.0003** (0.0001)
Education	0.0003 (0.004)	0.005 (0.008)	-0.006** (0.003)
Female	0.056*** (0.010)	0.068*** (0.019)	0.067*** (0.008)
Constant	0.513*** (0.019)	0.519*** (0.034)	0.518*** (0.016)
Observations	6,284	2,183	9,029
R ²	0.352	0.215	0.391
Adjusted R ²	0.352	0.213	0.390

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6.5: Rural White Support for the ACA, CCES (2014)

<i>Dependent variable:</i>			
ACA Support(2014)			
	(Government)	(None)	(Private)
Democrat	0.446*** (0.012)	0.354*** (0.024)	0.446*** (0.012)
Republican	-0.260*** (0.012)	-0.102*** (0.023)	-0.260*** (0.012)
Family Income	-0.00004 (0.0002)	-0.007* (0.004)	-0.00004 (0.0002)
Education	0.025*** (0.003)	0.031*** (0.008)	0.025*** (0.003)
Female	0.007 (0.009)	-0.008 (0.019)	0.007 (0.009)
Constant	0.251*** (0.015)	0.109*** (0.031)	0.251*** (0.015)
Observations	6,870	1,657	6,870
R ²	0.424	0.220	0.424
Adjusted R ²	0.423	0.217	0.423

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6.6: Rural White Support for the ACA, CCES (2016)

<i>Dependent variable:</i>			
ACA Support(2016)			
	(Government)	(None)	(Private)
Democrat	0.402*** (0.012)	0.347*** (0.025)	0.402*** (0.012)
Republican	-0.225*** (0.012)	-0.145*** (0.024)	-0.225*** (0.012)
Family Income	0.00005 (0.0002)	-0.005 (0.004)	0.00005 (0.0002)
Education	0.025*** (0.003)	0.004 (0.008)	0.025*** (0.003)
Female	0.0002 (0.009)	-0.025 (0.020)	0.0002 (0.009)
Constant	0.269*** (0.015)	0.248*** (0.032)	0.269*** (0.015)
Observations	7,934	1,656	7,934
R ²	0.335	0.214	0.335
Adjusted R ²	0.335	0.211	0.335

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6.7: Rural White Support for the ACA, CCES (2018)

<i>Dependent variable:</i>			
ACA Support(2018)			
	(Government)	(None)	(Private)
Democrat	0.325*** (0.013)	0.340*** (0.028)	0.325*** (0.013)
Republican	-0.309*** (0.013)	-0.249*** (0.025)	-0.309*** (0.013)
Family Income	-0.005*** (0.002)	-0.004 (0.004)	-0.005*** (0.002)
Education	0.024*** (0.003)	0.009 (0.008)	0.024*** (0.003)
Female	0.033*** (0.009)	-0.002 (0.021)	0.033*** (0.009)
Constant	0.474*** (0.016)	0.430*** (0.034)	0.474*** (0.016)
Observations	8,076	1,812	8,076
R ²	0.345	0.256	0.345
Adjusted R ²	0.344	0.254	0.344

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6.8: Government Insurance and Partisan Influences on Rural White Health Care Attitudes

	<i>Dependent variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
Medicare/Medicaid	0.005 (0.016)	0.075*** (0.012)	0.066*** (0.012)	0.060*** (0.013)
Democrat	0.321*** (0.011)	0.463*** (0.009)	0.438*** (0.009)	0.388*** (0.011)
Republican	-0.317*** (0.011)	-0.198*** (0.009)	-0.197*** (0.009)	-0.263*** (0.010)
Medicare/Medicaid*Dem	-0.012 (0.019)	-0.019 (0.015)	-0.036** (0.015)	-0.059*** (0.016)
Medicare/Medicaid*Rep	-0.004 (0.019)	-0.065*** (0.015)	-0.029* (0.015)	-0.056*** (0.016)
Family Income	-0.0003*** (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0003*** (0.0001)
Education	-0.002 (0.002)	0.030*** (0.002)	0.026*** (0.002)	0.021*** (0.002)
Female	0.063*** (0.006)	-0.0001 (0.006)	-0.004 (0.005)	0.038*** (0.006)
Constant	0.512*** (0.012)	0.168*** (0.010)	0.203*** (0.010)	0.398*** (0.011)
Observations	17,694	18,472	20,952	21,264
R ²	0.353	0.408	0.351	0.359
Adjusted R ²	0.352	0.408	0.351	0.359

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 6.9: Racial Attitudes, Partisanship, Personal Benefits, and Support for the ACA (CCES)

	<i>Dependent variable:</i>	
	ACA Support	
	(2012)	(2018)
Medicare/Medicaid	-0.017 (0.031)	0.040* (0.024)
Racial Resentment	-0.049*** (0.002)	-0.057*** (0.002)
Democrat	0.250*** (0.012)	0.288*** (0.012)
Republican	-0.271*** (0.011)	-0.180*** (0.011)
Family Income	-0.0003*** (0.0001)	-0.0003*** (0.0001)
Education	-0.015*** (0.002)	0.007*** (0.002)
Female	0.056*** (0.006)	0.036*** (0.006)
Medicare/Medicaid*Racial Resentment	0.003 (0.003)	0.006** (0.003)
Medicare/Medicaid*Democrat	-0.006 (0.021)	-0.043** (0.018)
Medicare/Medicaid*Republican	-0.007 (0.019)	-0.078*** (0.016)
Constant	0.933*** (0.021)	0.825*** (0.018)
Observations	15,833	18,640
R ²	0.402	0.439
Adjusted R ²	0.402	0.438

Note:

*p<0.1; **p<0.05; ***p<0.01

CHAPTER 7

Chapter 3 Appendix

7.1 Data Sources and Descriptive Statistics

This section reports the descriptive statistics and primary data sources used within the text. This chapter uses survey data from the American National Election Studies (ANES) and YouGov. To measure health care attitudes in the ANES, I rely on two measures from the ANES Cumulative File: VCF0806. VCF0806 (Government Health Insurance Scale) reads as follows:

There is much concern about the rapid rise in medical and hospital costs. Some (1988,1994-LATER: people) feel there should be a government insurance plan which would cover all medical and hospital expenses (1984 AND LATER: for everyone). (1996,2004: Suppose these people are at one end of a scale, at point 1). Others feel that (1988,1994-1996: all) medical expenses should be paid by individuals, and through private insurance (1984 AND LATER: plans) like Blue Cross (1984-1994: or [1996:some] other company paid plans). (1996,2004: Suppose these people are at the other end, at point 7. And of course, some people have opinions somewhere in between at points 2,3,4,5 or 6.) Where would you place yourself on this scale, or haven't you thought much about this? (7-POINT SCALE SHOWN TO R)

Table 7.1 provides descriptive statistics for the rural white sample from the CCES. I report data for 2018, but the sample characteristics are nearly identical across the survey waves.

Table 7.1: Descriptive Statistics for the CCES Rural White Sample (2018)

Statistic	N	Mean	St. Dev.	Min	Max
Age	21430	50	17.7	18	95
Female	21430	0.57	0.49	0	1
Democrat	21403	0.35	0.48	0	1
Republican	21403	0.46	0.50	0	1
Racial Resentment	18685	6.9	2.6	2	10
ACA Support	21408	0.5	0.5	0	1

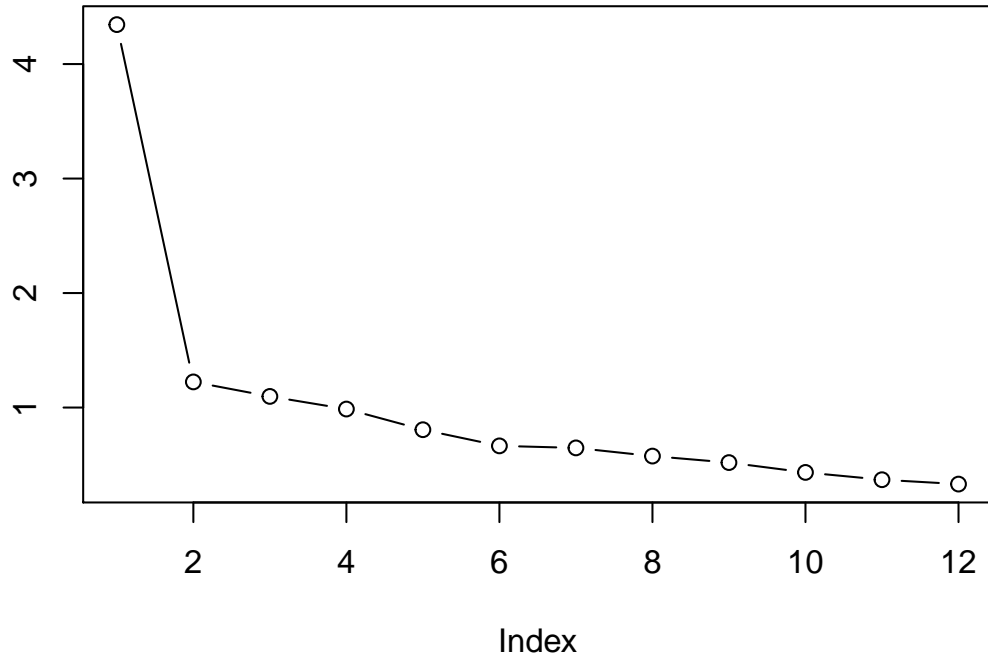
7.2 Rural Resentment Index

In this section, I discuss the construction of the rural resentment battery used within the main text. To measure Cramer’s (2016) rural resentment concept, I created an original survey battery of numerous items meant to measure all of the components of Cramer’s measure. These items include:

Table 7.2: Rural Resentment Battery

Survey Items	
Component	Question
Rural Identity	<ul style="list-style-type: none"> ● “Please indicate where you would put each group on a scale ranging from 0 to 10: <i>“People living in rural areas”</i>” ● “Please indicate where you would put each group on a scale ranging from 0 to 10: <i>“People living in big cities”</i>” ● “Regardless of where they live or what they do for a living, rural people have a lot in common.” ● “How close do you personally feel to each of the following kinds of people?”: <i>“People living in big cities”</i>” ● “How close do you personally feel to each of the following kinds of people?”: <i>“People living in rural areas”</i>”
Fair Share	<ul style="list-style-type: none"> ● “Do you think each of the following groups gets more or less than its fair share of government resources?” <i>“People living in big cities”</i> ● “Do you think each of the following groups gets more or less than its fair share of government resources?” <i>“People living in rural areas.”</i> ● “Decades of bad decisions by government have made it harder for rural people to work their way up in America. ” ● “The rural way of life is endangered by economic decline, drugs, and rapid social change.”
Culture	<ul style="list-style-type: none"> ● “People in cities preach respect for others, but they think it is okay to make fun of people from rural areas.” ● “The culture of rural America is the REAL American culture.” ● “The media mostly portray what life is like in New York and Hollywood, not in the rest of America.” ● “The traditional American way of life is disappearing so fast that we may have to use force to save it.” ● “People in cities tend to look down on people living in communities like mine.” ● “Rural people in this country have a lot to be proud of.”

Figure 7.1: Plausible Number of Factors for Rural Resentment Battery



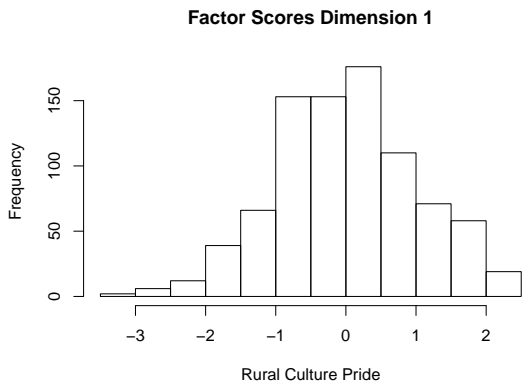


Figure 7.2: Dimension 1: Rural Cultural Pride

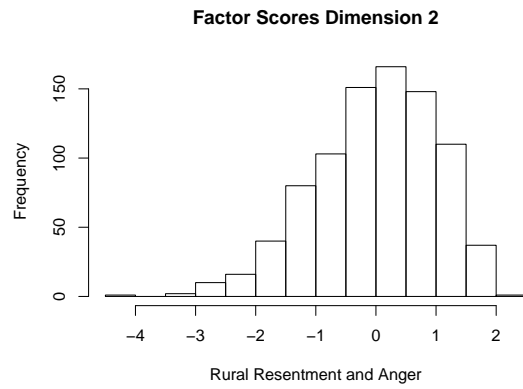


Figure 7.3: Dimension 2: Rural Resentment

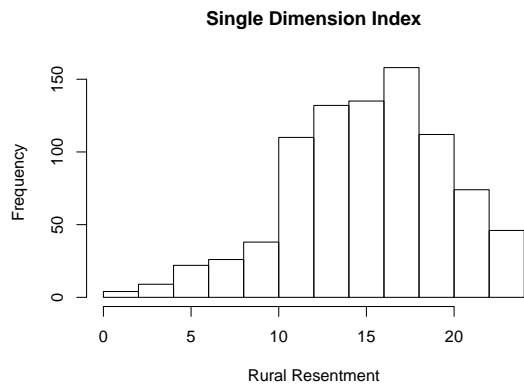


Figure 7.4: Rural Resentment Additive Index

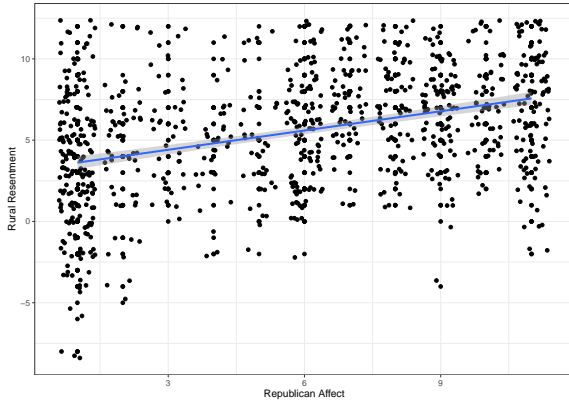


Figure 7.5: Rural Resentment and GOP Affect

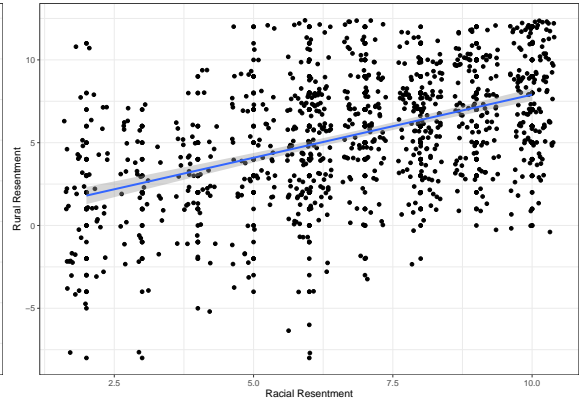


Figure 7.6: Rural and Racial Resentment

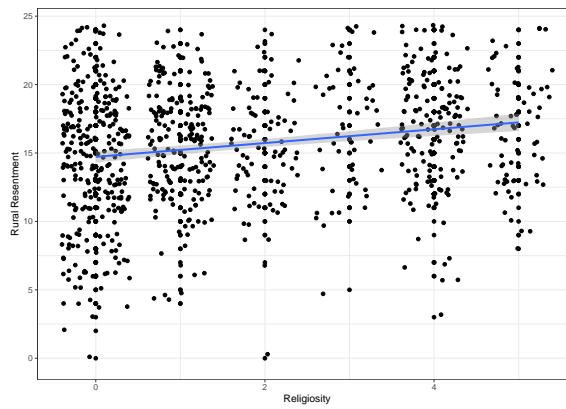


Figure 7.7: Rural Resentment and Religiosity

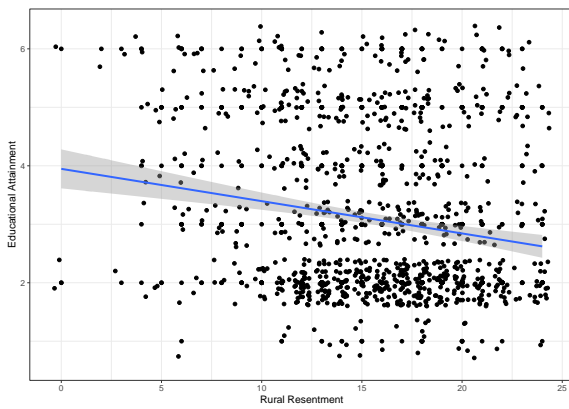


Figure 7.8: Rural Resentment and Education

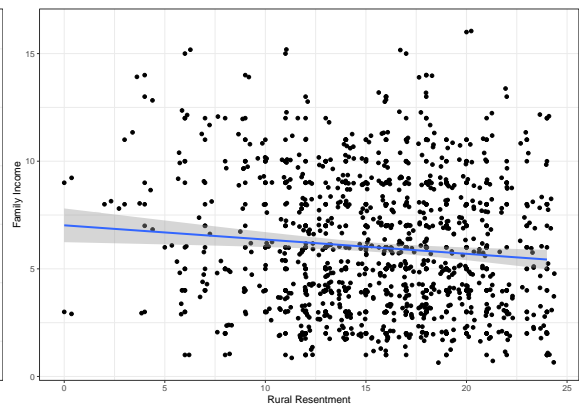


Figure 7.9: Rural Resentment and Income

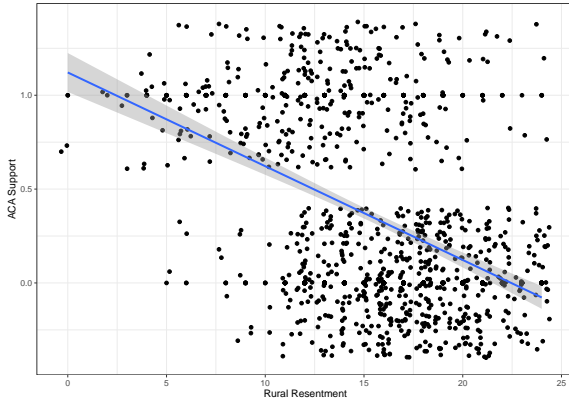


Figure 7.10: Rural Resentment and ACA Support

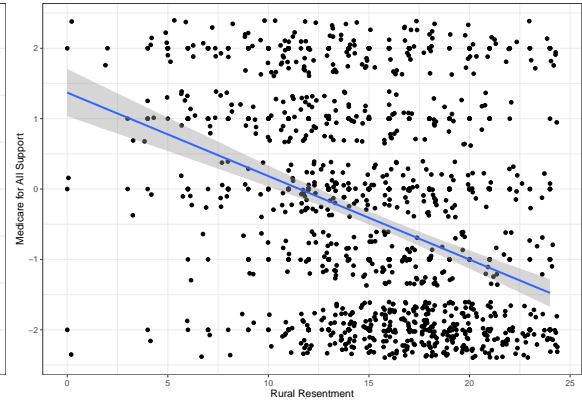


Figure 7.11: Rural and M4A Support

For these analyses, I rely on a simple additive index of rural resentment. However, principal components analysis suggest that two dimensions of rural resentment are sufficient and present using these items. One dimension appears to be based more on pride in a common rural culture and “traditional” rural ways of life (Cronbach’s $\alpha \approx 0.8$) and the other on feelings of cultural threat and perceptions of government unfairness toward rural communities (Cronbach’s $\alpha \approx 0.8$). Results are robust to using these factor scores instead of the additive index used in the main text. Figures 7.5 and 7.6 plot the bivariate relationship between rural resentment and GOP affect (0 to 10, with 10 being the most fond) and racial resentment respectively. As expected, rural resentment is correlated with both of these items. However, not so much so that they appear to be the same constructs.

Figures 7.10 and 7.11 show that the rural resentment battery is negatively correlated with support for the ACA and Medicare-for-all, indicating that more rurally resentful whites tend to be less supportive of government health insurance programs.

7.3 ANES Analyses

In this section, I present regression analyses using the ANES data...

Table 7.3: Local Health Conditions and Rural Support for Government Insurance (1972)

	<i>Dependent variable:</i>	
	Government Health Insurance Scale	
	(Urban)	(Rural)
Infant Mortality Rate	0.018 (0.024)	-0.005 (0.011)
Republican	-2.507** (1.234)	-0.792 (0.700)
Democrat	-0.853 (1.205)	-0.914 (0.654)
Men	0.647 (0.607)	1.008** (0.473)
Education	-0.343 (0.298)	0.182 (0.261)
Income	-0.666** (0.290)	-0.250 (0.229)
Constant	4.049** (1.782)	0.667 (0.862)
Observations	55	119
R ²	0.342	0.063
Adjusted R ²	0.260	0.013

Note: *p<0.1; **p<0.05; ***p<0.01

Table 7.4: Local Health Conditions and Rural Support for Government Insurance (1992)

	<i>Dependent variable:</i>	
	Government Health Insurance Scale	
	(Urban)	(Rural)
Infant Mortality Rate	0.001 (0.004)	-0.003** (0.001)
Republican	-0.109 (0.360)	-0.831*** (0.245)
Democrat	1.174*** (0.339)	0.583** (0.243)
Men	0.115 (0.198)	-0.279* (0.153)
Education	-0.118 (0.112)	0.036 (0.089)
Income	-0.188* (0.103)	-0.161** (0.075)
Constant	0.852 (0.580)	1.445*** (0.368)
Observations	310	515
R ²	0.138	0.154
Adjusted R ²	0.121	0.145

Note: *p<0.1; **p<0.05; ***p<0.01

7.4 YouGov Analyses

Here, I present the full regression results from YouGov sample of roughly 800 rural whites.

Table 7.5: Rural Resentment and Support for Government Health Insurance

	<i>Dependent variable:</i>		
	Fed HC Responsibility	Med4All	ACA
	(1)	(2)	(3)
Rural Resentment	-0.014 (0.010)	-0.036*** (0.012)	-0.014*** (0.003)
Racial Resentment	-0.110*** (0.020)	-0.126*** (0.023)	-0.032*** (0.006)
Religiosity	-0.080*** (0.024)	-0.103*** (0.027)	-0.016** (0.008)
Republican	-0.225** (0.110)	-0.396*** (0.125)	-0.113*** (0.036)
Democrat	0.761*** (0.124)	0.792*** (0.140)	0.457*** (0.040)
Age	-0.002 (0.003)	-0.012*** (0.003)	-0.0004 (0.001)
Income	-0.026* (0.013)	-0.048*** (0.015)	0.00005 (0.004)
Education	0.007 (0.029)	-0.045 (0.032)	0.001 (0.009)
Gender	0.209*** (0.077)	0.176** (0.088)	0.039 (0.025)
Constant	1.915*** (0.265)	2.154*** (0.300)	0.731*** (0.086)
Observations	740	740	713
R ²	0.337	0.394	0.533
Adjusted R ²	0.328	0.387	0.527

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7.6: Rural Resentment and Health Care Support Across the Party Divide

	<i>Dependent Variable:</i>			
	ACA Support		M4A Support	
	(Dem)	(GOP)	(Dem)	(GOP)
Rural Resentment	-0.016*** (0.006)	-0.015*** (0.004)	-0.022 (0.020)	-0.029* (0.016)
Racial Resentment	-0.034*** (0.010)	-0.025*** (0.009)	-0.099*** (0.035)	-0.119*** (0.034)
Religiosity	-0.037** (0.018)	-0.006 (0.008)	-0.105* (0.061)	-0.097*** (0.031)
Age	0.002 (0.002)	-0.002** (0.001)	-0.017*** (0.005)	-0.011*** (0.004)
Income	0.007 (0.008)	-0.006 (0.005)	-0.052** (0.025)	-0.048** (0.021)
Education	0.005 (0.016)	-0.008 (0.011)	0.027 (0.056)	-0.115*** (0.043)
Gender	-0.022 (0.046)	0.023 (0.029)	-0.019 (0.154)	0.272** (0.115)
Constant	1.086*** (0.145)	0.760*** (0.121)	2.825*** (0.471)	1.675*** (0.486)
Observations	232	372	244	382
R ²	0.172	0.095	0.163	0.135
Adjusted R ²	0.146	0.078	0.138	0.119

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7.7: Rural Resentment Across the Income Divide

	<i>Dependent variable:</i>			
	Medicare-4-All		ACA	
	(Poor)	(Rich)	(Poor)	(Rich)
Rural Resentment	-0.050** (0.020)	-0.021 (0.028)	-0.012** (0.006)	-0.013* (0.007)
Racial Resentment	-0.153*** (0.040)	-0.120** (0.053)	-0.025** (0.012)	-0.047*** (0.013)
Religiosity	-0.067 (0.048)	-0.004 (0.064)	0.0004 (0.014)	0.005 (0.015)
Republican	-0.386* (0.211)	-0.878** (0.437)	-0.133** (0.064)	0.038 (0.104)
Democrat	0.468** (0.236)	0.493 (0.489)	0.422*** (0.070)	0.659*** (0.120)
Age	-0.010* (0.006)	-0.024*** (0.007)	-0.00004 (0.002)	0.0003 (0.002)
Income	-0.087 (0.086)	0.060 (0.068)	0.019 (0.026)	-0.010 (0.019)
Education	-0.064 (0.066)	-0.175** (0.068)	0.030 (0.019)	-0.016 (0.016)
Gender	0.273 (0.166)	0.336* (0.196)	0.037 (0.049)	-0.052 (0.049)
Constant	2.608*** (0.577)	1.907* (1.114)	0.492*** (0.171)	0.767** (0.329)
Observations	276	104	268	97
R ²	0.317	0.592	0.430	0.804
Adjusted R ²	0.294	0.553	0.410	0.783

Note: *p<0.1; **p<0.05; ***p<0.01

7.5 CCES Analyses

Table 7.8: Rural Symbolic Support for Government Health Care

	<i>Dependent variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
Democrat	0.316*** (0.009)	0.454*** (0.008)	0.426*** (0.007)	0.360*** (0.008)
Republican	-0.304*** (0.009)	-0.211*** (0.007)	-0.188*** (0.007)	-0.273*** (0.008)
Religiosity	-0.015*** (0.002)	-0.013*** (0.002)	-0.020*** (0.002)	-0.015*** (0.002)
Family Income	-0.0003*** (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0003*** (0.0001)
Education	-0.001 (0.002)	0.029*** (0.002)	0.026*** (0.002)	0.023*** (0.002)
Female	0.066*** (0.006)	0.002 (0.006)	-0.001 (0.005)	0.041*** (0.006)
Constant	0.531*** (0.011)	0.219*** (0.009)	0.253*** (0.009)	0.438*** (0.010)
Observations	17,506	18,260	20,739	21,006
R ²	0.358	0.408	0.356	0.362
Adjusted R ²	0.357	0.408	0.356	0.362

Note:

*p<0.1; ** p<0.05; *** p<0.01

Table 7.9: Rural Symbolic Attachments and Support for Government Health Care

	<i>Dependent variable:</i>	
	ACA Support	
	(1)	(2)
Racial Resentment	-0.048*** (0.002)	-0.054*** (0.001)
Religiosity	-0.016*** (0.002)	-0.013*** (0.002)
Family Income	-0.0003** (0.0001)	-0.0003** (0.0001)
Democrat	0.246*** (0.010)	0.267*** (0.009)
Republican	-0.259*** (0.009)	-0.203*** (0.008)
Education	-0.013*** (0.002)	0.007*** (0.002)
Female	0.059*** (0.006)	0.038*** (0.006)
Constant	0.941*** (0.018)	0.856*** (0.015)
Observations	15,673	18,463
R ²	0.407	0.439
Adjusted R ²	0.406	0.439

Note: *p<0.1; **p<0.05; ***p<0.01

Table 7.10: Opioid Conditions and Rural Support for Government Health Care

	<i>Dependent Variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
Opioid Increase	-0.001 (0.006)	-0.013** (0.006)	-0.022** (0.011)	-0.015 (0.011)
Democrat	0.317*** (0.009)	0.454*** (0.008)	0.425*** (0.007)	0.359*** (0.008)
Republican	-0.304*** (0.009)	-0.212*** (0.008)	-0.188*** (0.007)	-0.273*** (0.008)
Religiosity	-0.015*** (0.002)	-0.013*** (0.002)	-0.020*** (0.002)	-0.015*** (0.002)
Family Income	-0.0003*** (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0003*** (0.0001)
Education	-0.001 (0.002)	0.029*** (0.002)	0.026*** (0.002)	0.023*** (0.002)
Female	0.066*** (0.006)	0.002 (0.006)	-0.001 (0.005)	0.041*** (0.006)
Constant	0.532*** (0.012)	0.226*** (0.010)	0.255*** (0.009)	0.440*** (0.010)
Observations	17,271	18,072	20,672	20,946
R ²	0.358	0.410	0.356	0.362
Adjusted R ²	0.358	0.410	0.356	0.362

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7.11: Years of Potential Life Lost and Rural Support for Government Health Care

	<i>Dependent Variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
Years of Life Lost	-0.005*** (0.002)	-0.014*** (0.002)	-0.008*** (0.002)	-0.009*** (0.002)
Democrat	0.314*** (0.009)	0.453*** (0.008)	0.425*** (0.007)	0.358*** (0.008)
Republican	-0.305*** (0.009)	-0.212*** (0.007)	-0.188*** (0.007)	-0.273*** (0.008)
Religiosity	-0.015*** (0.002)	-0.012*** (0.002)	-0.020*** (0.002)	-0.014*** (0.002)
Family Income	-0.0003*** (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0003*** (0.0001)
Education	-0.001 (0.002)	0.027*** (0.002)	0.025*** (0.002)	0.021*** (0.002)
Female	0.066*** (0.006)	0.002 (0.006)	-0.001 (0.005)	0.042*** (0.006)
Constant	0.574*** (0.017)	0.325*** (0.015)	0.318*** (0.015)	0.509*** (0.016)
Observations	17,459	18,231	20,701	20,969
R ²	0.358	0.411	0.358	0.364
Adjusted R ²	0.358	0.411	0.358	0.364

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7.12: Percent of Population in Poor Health and Rural Support for Government Health Care

	<i>Dependent Variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
% in Poor/Fair Health	-0.002*** (0.001)	-0.006*** (0.001)	-0.004*** (0.001)	-0.005*** (0.001)
Democrat	0.315*** (0.009)	0.452*** (0.008)	0.425*** (0.007)	0.359*** (0.008)
Republican	-0.304*** (0.009)	-0.211*** (0.007)	-0.188*** (0.007)	-0.272*** (0.008)
Religiosity	-0.015*** (0.002)	-0.012*** (0.002)	-0.020*** (0.002)	-0.014*** (0.002)
Family Income	-0.0003*** (0.0001)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0003*** (0.0001)
Education	-0.001 (0.002)	0.028*** (0.002)	0.025*** (0.002)	0.021*** (0.002)
Female	0.066*** (0.006)	0.002 (0.006)	-0.001 (0.005)	0.042*** (0.006)
Constant	0.572*** (0.018)	0.314*** (0.016)	0.328*** (0.016)	0.515*** (0.017)
Observations	17,506	18,260	20,739	21,006
R ²	0.358	0.410	0.357	0.363
Adjusted R ²	0.358	0.410	0.357	0.363

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 7.13: Obesity Rates and Rural Support for Government Health Care

	<i>Dependent Variable:</i>			
	ACA Support			
	(2012)	(2014)	(2016)	(2018)
Obesity rate	-0.001*	-0.005***	-0.003***	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)
Democrat	0.315***	0.453***	0.424***	0.359***
	(0.009)	(0.008)	(0.007)	(0.008)
Republican	-0.304***	-0.211***	-0.188***	-0.273***
	(0.009)	(0.007)	(0.007)	(0.008)
Religiosity	-0.015***	-0.012***	-0.020***	-0.014***
	(0.002)	(0.002)	(0.002)	(0.002)
Family Income	-0.0003***	-0.0001	0.0001	-0.0003***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Education	-0.001	0.027***	0.025***	0.022***
	(0.002)	(0.002)	(0.002)	(0.002)
Female	0.066***	0.002	-0.0002	0.042***
	(0.006)	(0.006)	(0.005)	(0.006)
Constant	0.572***	0.370***	0.350***	0.521***
	(0.027)	(0.024)	(0.024)	(0.025)
Observations	17,506	18,260	20,739	21,006
R ²	0.358	0.410	0.357	0.363
Adjusted R ²	0.357	0.410	0.357	0.363

Note:

*p<0.1; **p<0.05; ***p<0.01

CHAPTER 8

Chapter 4 Appendix

8.1 Descriptive Statistics

In this section, I provide descriptive statistics and plots of the data used in the manuscript. In Table 8.1 I provide a list of each state's Medicaid expansion status as of 2015. States that are not included in the border sample GDD are listed in red. In Table 8.2, I provide the means, standard deviations, minimums, and maximums for all variables used in the GDD analyses for border sample. Table 8.3 reports the same quantities for the red-state sample. The red state sample includes: KY, TN, AR, IA, NM, WI, AZ, TX, OK, NE, WY, UT, MI, ND, SD, KS, LA, and MS.

Table 8.1: Expansion Status of each Status as of 2015

Expansion States (2015)	Non-expansion States (2015)
AK, AR, AZ, CA, CO, CT, DE, HI, IA, IL, IN, KY, MA, MD, MI, MN, NH, NJ, NM, NV, NY, OH, OR, PA, RI VT, WA, WV	AL, FL, GA, ID, KS, LA, ME, MO, MT, ND, NE, OK, SC, SD, TN, TX, UT, VA, WI, WY

Notes: States not included in the border sample study are in red.

Table 8.2: Descriptive Statistics for the GDD Border Sample

Statistic	N	Mean	St. Dev.	Min	Max
Democratic Vote Shift (2016-2012)	1,347	-7.197	5.102	-24.290	11.790
Opioid Prescription Rate (2016)	1,273	75.432	42.897	0.000	251.600
$\Delta OpioidRate(2016 - 2014)$	1,267	-9.518	17.187	-189.200	107.000
Medicaid Expansion	1,348	0.464	0.499	0	1
Distance to ME Border	1,348	-3.243	53.534	-98.700	99.500
Ln Median Income	1,348	10.625	0.253	9.845	11.626
Unemployment Rate	1,348	5.412	2.923	0.000	26.449
% Less than HS	1,348	13.326	6.431	1.615	46.095

Table 8.3: Descriptive Statistics for GOP Expansion Border Sample

Statistic	N	Mean	St. Dev.	Min	Max
Democratic Vote Shift (2016-2012)	787	-6.971	4.877	-24.290	6.300
Opioid Prescription Rate (2016)	740	79.962	45.737	0.100	251.600
$\Delta OpioidRate(2016 - 2014)$	736	-8.671	16.534	-78.100	107.000
Medicaid Expansion	787	0.407	0.492	0	1
Distance to ME Border	787	-10.834	53.639	-98.700	99.300
Ln Median Income	787	10.568	0.229	9.845	11.389
Unemployment Rate	787	5.495	3.295	0.000	26.449
% Less than HS	787	14.434	7.069	2.924	46.095

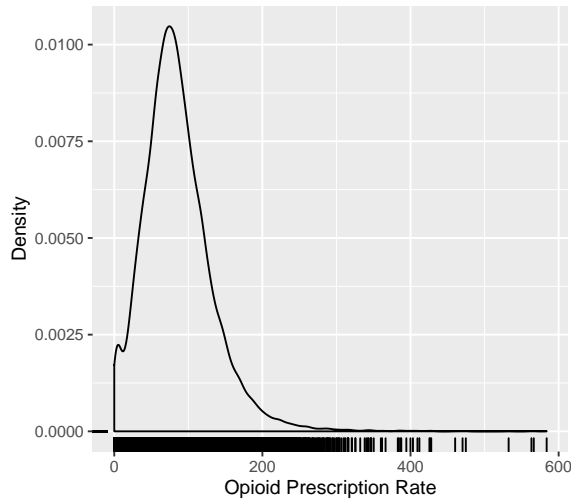


Figure 8.1: Prescription Rates (2006-2016)

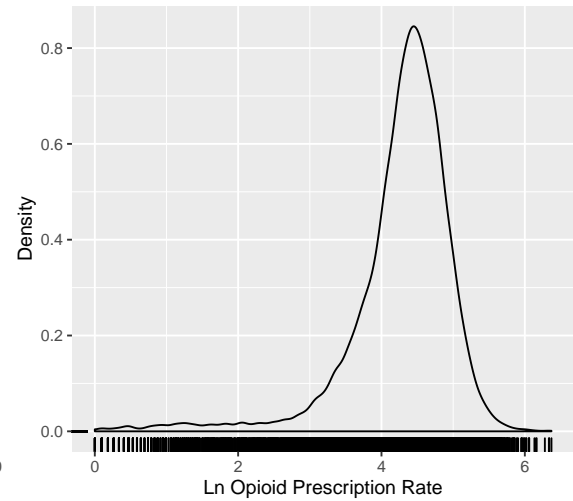


Figure 8.2: log Prescription Rates (2006-2016)

Figures 8.1 and 8.2 provide density plots of the opioid prescription rate and the natural log of the opioid prescription rates from 2006-2016.

Figure 8.3 plots the relationship between the CDC opioid prescription rate data used in the manuscript analyses and the Washington Post’s DEA Pills data for all counties in 2008 and 2012. To make the measures comparable, I transformed the WaPo Pills data to be the estimated yearly total in the county adjusted for the county’s population. Thus, both the CDC prescription rate (prescriptions per 100) and WaPo pills data (pills per 1000) are population-adjusted rates. As we can see, the two variables are highly related to one another; the Pearson’s correlation between the two is 0.8. Figure 8.4 provides a similar plot for the relationship between the CDC pills data and reports of rates drug-related deaths. These two variables are correlated at 0.5. I have opted to use the CDC data out of necessity, due to its greater available across the county and over time. The death and pills data are not available every year and not available at any point in 2015 or 2016. Given that the three variables are highly comparable, the use of one of the others is likely trivial. Figures 8.5, 8.6, and 8.7 plot the geographic dispersion of these variables.

To provide a substantive comparison between opioid prescription rates and drug/opioid-related death rates, I estimate a regression model prediction death rates as a function of opioid prescriptions. The results (presented in Table 8.4) of this correlational analysis imply that a two-standard deviation increase in opioid prescriptions is associated with an increase just over 5 drug-related deaths per 100,000 in the county, which is the equivalent of increasing from the minimum number of deaths per 100,000 (zero) to above the 25th percentile. The prediction of increasing opioid prescription rates from their min-to-max is 37 deaths per 100,000, above the 90th percentile in drug-related deaths.

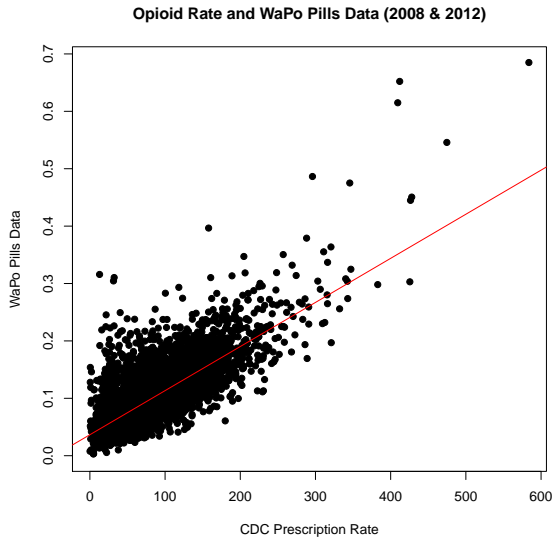


Figure 8.3: CDC and Wapo Opioid Data

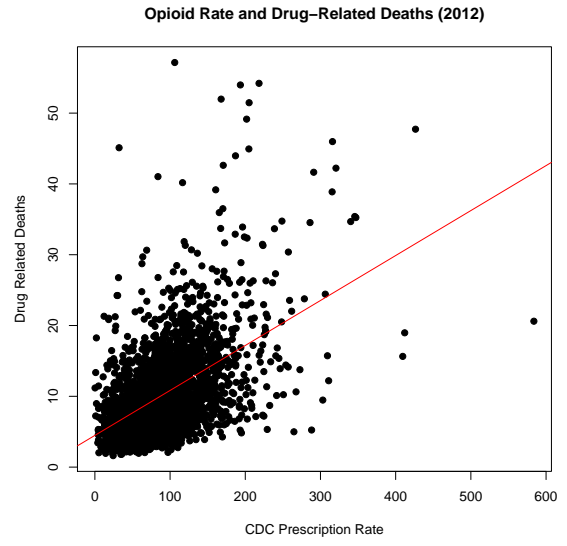
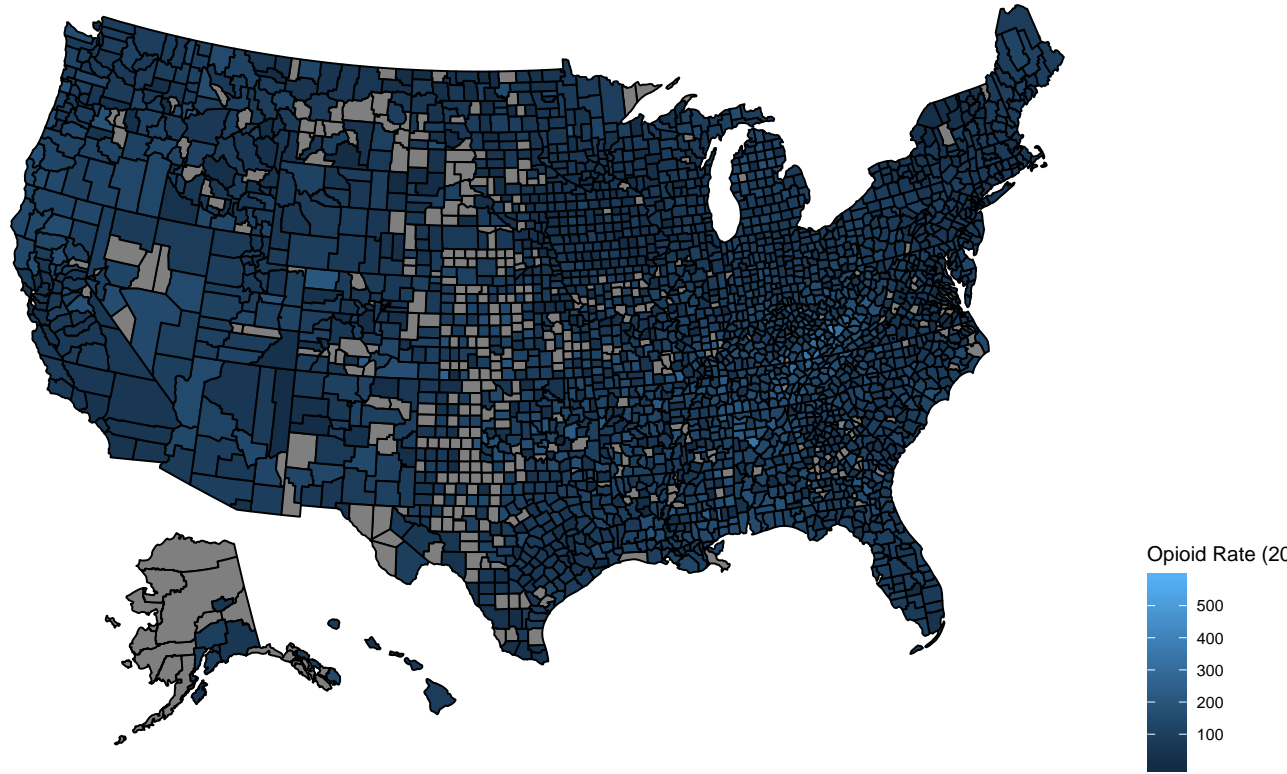


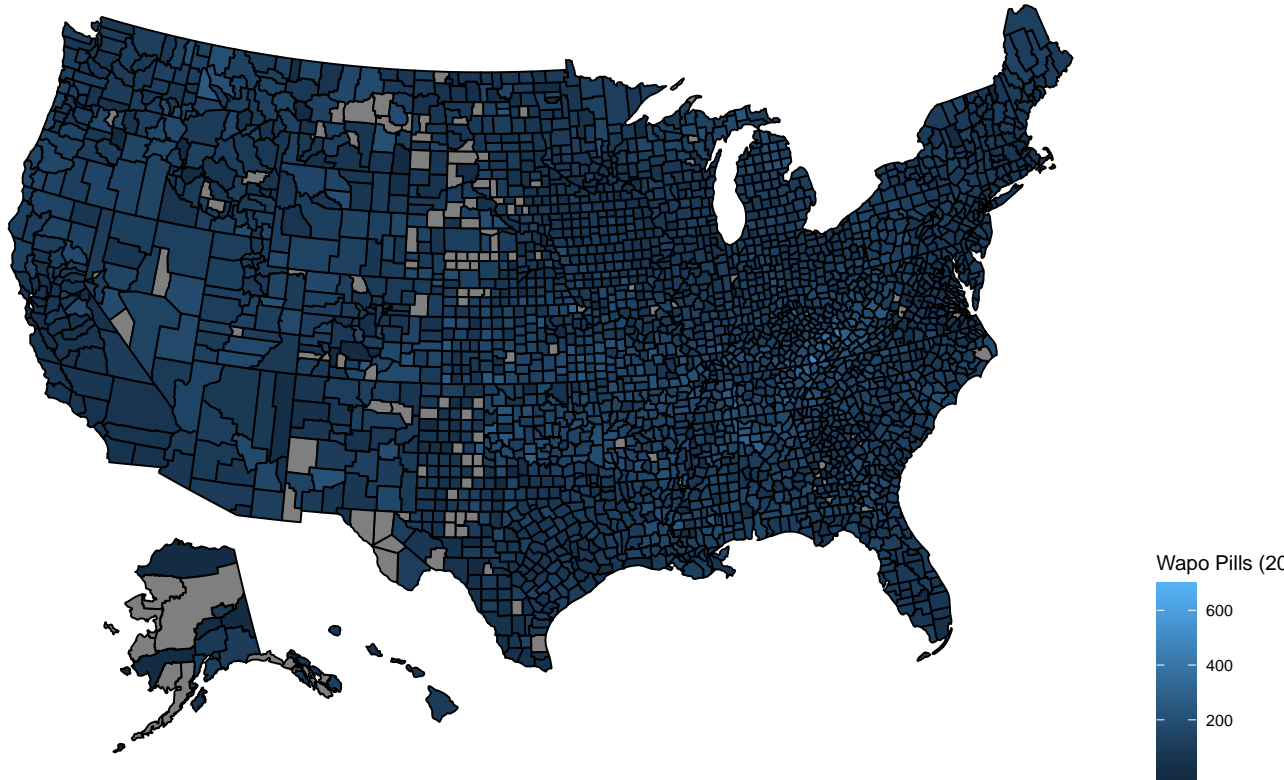
Figure 8.4: CDC and Death Data

Figure 8.5: County Level Opioid Prescription Rate (2012)



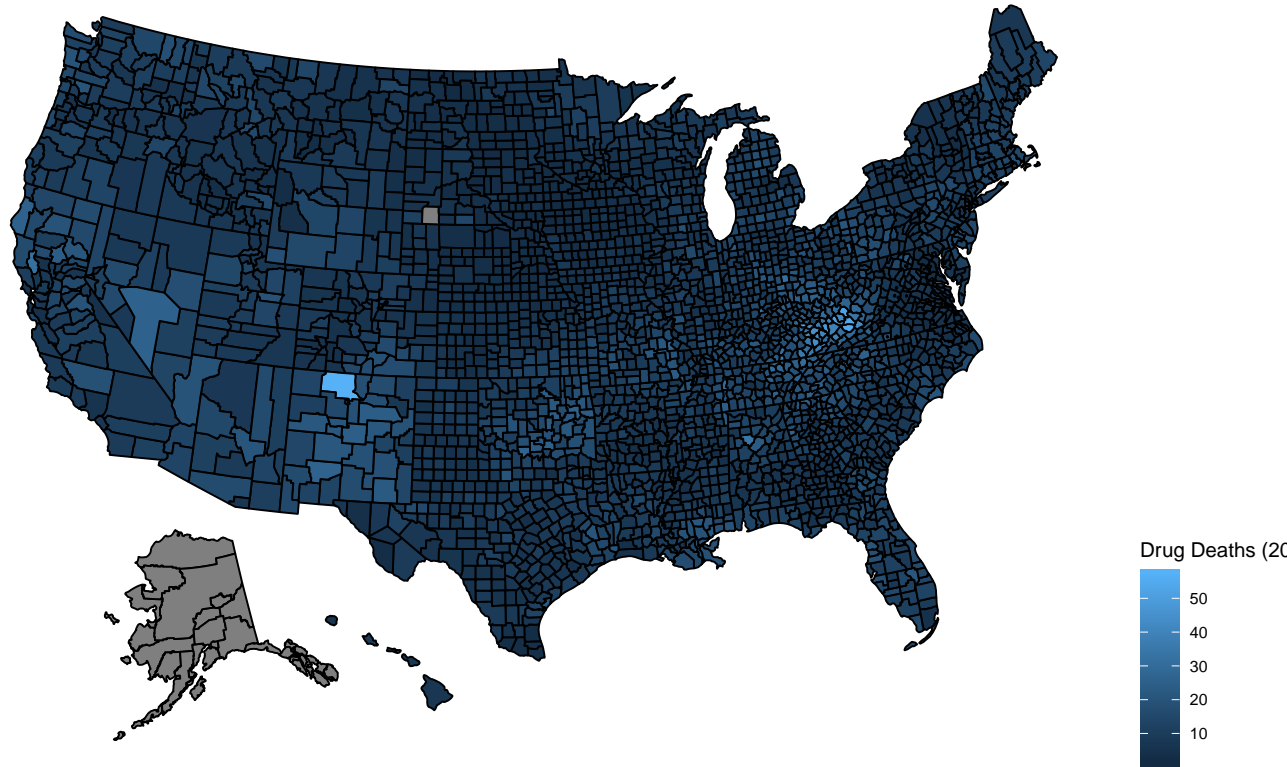
Source: Centers for Disease Control. The plot is the opioid prescription rate (prescriptions per 100) at the county level in 2012. Lighter colors indicate higher usage rates. Gray counties reflect missing data.

Figure 8.6: County Level WaPo Pills Rate (2012)



Source: Washington Post, DEA Pills Database. <https://www.washingtonpost.com/graphics/2019/investigations/dea-pain-pill-database/>. The plot reflects the number of pills per 1000 at the county level in 2012. Lighter colors indicate higher usage rates. Gray counties reflect missing data.

Figure 8.7: Drug Related Deaths (2014)



Source: Centers for Disease Control. The plot reflects the number of drug related deaths, population adjusted, at the county level in 2014. Lighter colors indicate higher usage rates. Gray counties reflect missing data.

Table 8.4: Implied Substantive Relationship between Prescriptions and Deaths

	<i>Dependent variable:</i>
	Drug-related Mortality Rate (2014)
Opioid Rate (2016)	0.064*** (0.002)
Constant	4.479*** (0.214)
Observations	2,735
R ²	0.262
Adjusted R ²	0.262

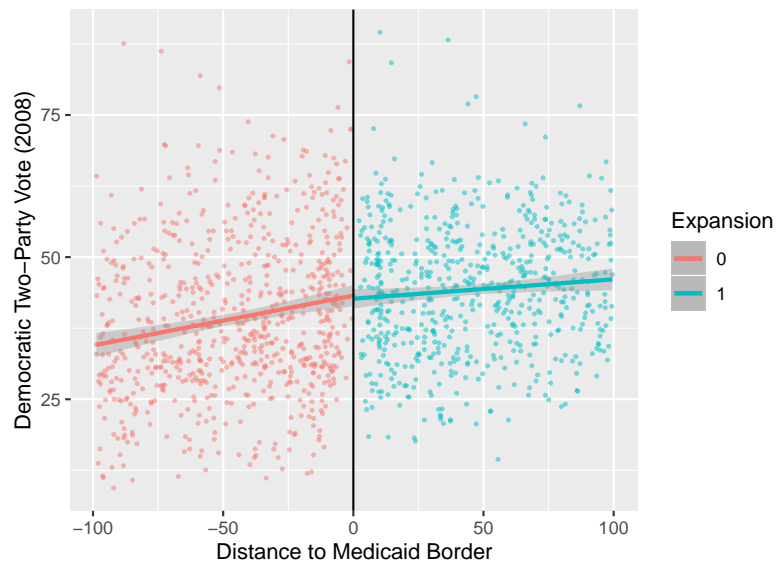
Note: *p<0.1; **p<0.05; ***p<0.01

8.2 Research Design Assumption Tests

Here, I provide graphical evidence in support of the major required identification strategies used within the main text. In Figure 8.8 plots the Democratic Two Party vote share (2008) as a function of distance to the Medicaid expansion border. We should not observe a jump at the Medicaid expansion border in support for the Democratic party in 2008, prior to the Medicaid expansion onset. Indeed, we see that at the Medicaid border, the relationship was flat and there was no discontinuous jump. This placebo test reassures us that there were no differences in voting prior to the actual treatment.

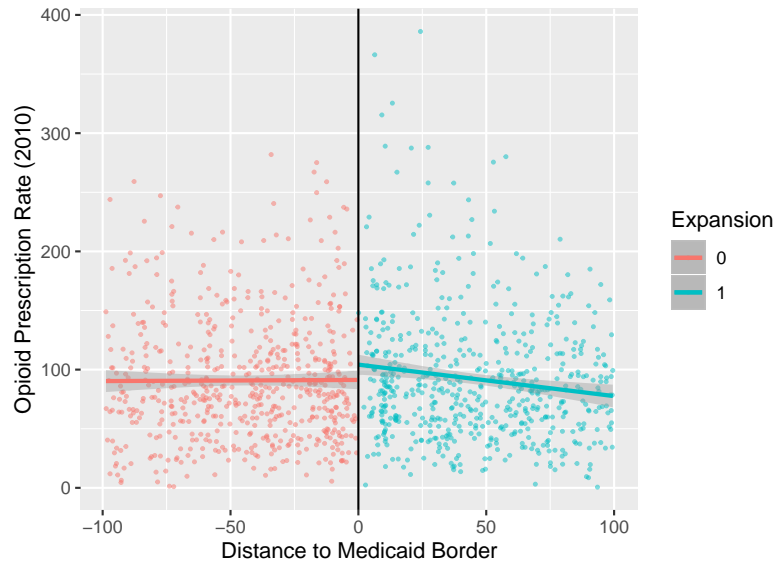
Figure 8.9 provides a similar plot for the opioid prescription rate in 2010, prior to the onset of Medicaid expansion and the ACA. Although there does appear to a slight jump at the border, this jump is not statistically significant and substantively negligible. Accordingly, the resulting differences we observe in opioid outcomes between the two groups of counties are likely due to Medicaid expansion.

Figure 8.8: Evidence of Pre-Treatment Discontinuity?



Note: This figure plots the relationship between 2008 Democratic two-party vote share and distance to the Medicaid expansion border. The plot shows that there was no pre-treatment difference between expansion and non-expansion units.

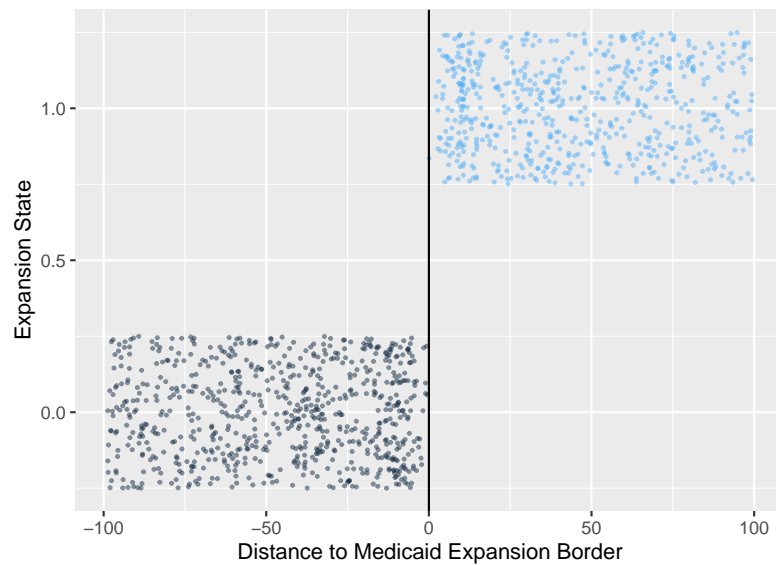
Figure 8.9: Evidence of Pre-Treatment Discontinuity?



Note: This figure plots the relationship between 2010 opioid prescription rates and distance to the Medicaid expansion border. The plot shows that there was no pre-treatment difference between expansion and non-expansion units.

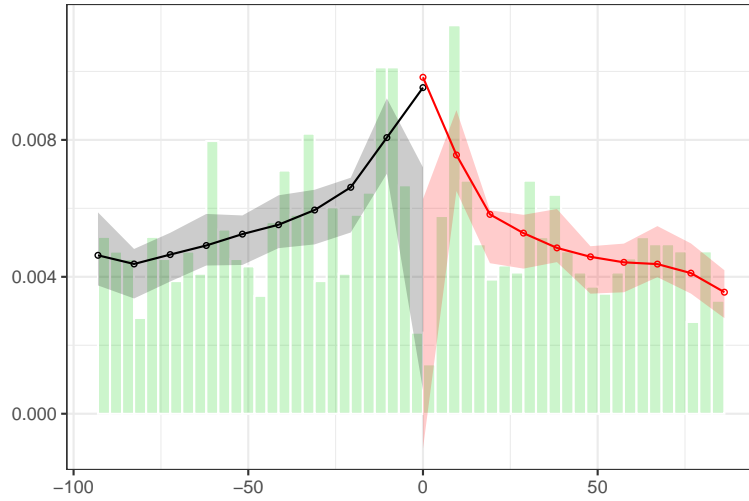
Figure 8.10 confirms that this GDD is indeed a sharp discontinuity. Obviously, counties cannot control whether or not they are exposed to Medicaid. This plot simply shows that the data conform to those expectations. Figure 8.11 plots the distribution of counties across the running variable (distance to the Medicaid expansion border). The number of counties is distributed normally across the range of the running variable, with fewer and fewer cases near the 100 mile points. The drop near the cutpoint is simply an artifact of using the county centroid to measure the distance. No county centroids are zero miles from a Medicaid expansion border.

Figure 8.10: Distance to Border as Sharp Discontinuity



Note: This figure plots evidence that the state borders provide a sharp discontinuity. All units in expansion states were treated and vice versa for the control units.

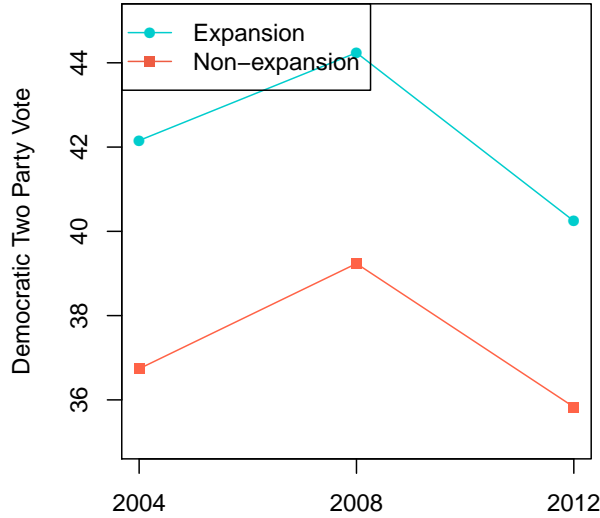
Figure 8.11: Distribution of Counties across Running Variable



Note: This figure plots the distribution of cases as a function of the running variable (distance to the border). The plot demonstrates that cases are normally distributed across distances to the border.

Figure 8.12 provides the parallel trends in Democratic two party vote share for treated and control units for the the GDD border sample. As we can see, the two groups trended together before the expansion of Medicaid. After, the non-expansion units become even less Democratic than their expansion peers.

Figure 8.12: Pre-treatment Parallel Trends in Democratic Vote Share



Note: This figure plots the parallel trends in the Democratic Party's share of the two party vote from 2004-2008. Expansion and non-expansion units trended similarly prior to treatment.

Table 8.5 provides balance statistics for Expansion and Non-expansion counties for the border sample, as well as their difference of means (with significance for t-test reported). Expansion counties were slightly more Democratic and white. However, both of these differences are no longer statistically significant once distance to the border is accounted for. This result indicates, as we may expect, that counties further from the border are less similar to each other than ones nearer to the border.

Table 8.5: Balance Between Expansion and Non-Expansion Counties

Statistic	Exp.	Exp SD	Non-Exp.	Non-Exp SD	Diff
Democratic Two Party Vote Share (2012)	40.24	12.294	35.83	14.457	4.41 *
Opioid Prescription Rate (2012)	91.86	54.954	90.36	51.671	1.50
Percent Poverty	0.15	0.066	0.15	0.064	-0.00
Percent 65+	0.16	0.040	0.16	0.039	-0.00
Percent White	0.90	0.119	0.84	0.168	0.06*
Ln Median Income	10.62	0.264	10.62	0.243	0.01

8.2.1 Medicaid or Opioid Sorting?

Here, I probe the threat to inference posed by individuals moving or sorting into counties based on their Medicaid expansion status or opioid rate. As ? and Schwartz and Sommers (2014) suggest that this not likely an issue. Here, I further investigate whether opioid prescription rates or Medicaid expansion predict out migration. I use changes in a counties opioid prescription usage during the period (separately I also use the opioid prescription rate) and expansion status as the independent variables. The dependent variable is change in out-migration from 2013 to 2015. In Table 8.6 we see no relationship between the severity of the opioid rate or Medicaid expansion status and changes in out migration.

Table 8.6: Impact of Medicaid Expansion on Migration

	<i>Dependent variable:</i>	
	Δ Outmigration	
	(1)	(2)
$\Delta OpioidRate$	0.236 (0.158)	
Opioid Rate (2012)		0.080 (0.052)
Medicaid Expansion	12.666 (10.273)	15.173 (10.450)
Distance to Border	-11.313 (7.191)	-22.677*** (8.671)
Observations	1,267	1,179
R ²	0.011	0.011
Adjusted R ²	0.008	0.007
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

8.3 Voter Study Group and Opioid Severity

In this section, I examine the extent to which survey-based measures of individual knowledge of someone who is addicted to painkillers, alcohol, and drugs are related to objective measures of the opioid epidemic. Sides et al. (2019) use these items to assess the impact of the opioid epidemic, finding null results. Here, I show that these survey based measures do not reliably measure opioid epidemic severity.

Table 8.7: Personal Knowledge and Community Opioid Severity (VSG)

	<i>Dependent variable:</i>					
	Painkillers (1)	Alcohol (2)	Drugs (3)	Painkillers (4)	Alcohol (5)	Drugs (6)
$\Delta OpioidRate$	-0.003*** (0.001)	-0.002*** (0.001)	-0.001** (0.001)			
Opioid Rate				0.002*** (0.0002)	0.0001 (0.0002)	0.0003 (0.0002)
Constant	0.263*** (0.007)	0.513*** (0.008)	0.362*** (0.008)	0.174*** (0.013)	0.524*** (0.015)	0.353*** (0.014)
Observations	7,740	7,809	7,764	7,740	7,809	7,764
R ²	0.003	0.001	0.001	0.011	0.00004	0.0003
Adjusted R ²	0.003	0.001	0.0004	0.011	-0.0001	0.0002

Note:

p<0.05; *p<0.01

8.4 Impact of Medicaid Expansion on Opioids

In this section, I report regression estimates for the impact of Medicaid expansion on changes in opioid prescription rates from 2014 to 2016. I do this parametrically and non-parametrically. I report the full parametric regression results of the effects of Medicaid expansion on the opioid epidemic in Table 8.8. Specifically, I estimate a GDD model where Y_i , the change in the opioid prescription rate after Medicaid expansion (2016-2014), is regressed on an indicator for whether a county expanded Medicaid, the county's distance in miles to the nearest state border with a different expansion status (the running variable), and an interaction between the two. I estimate this model solely on counties within 100 miles of the nearest border. We see that Medicaid expansion reduced the severity of the opioid epidemic by an estimated 3.5 prescriptions per 100 people in the OLS model.

Table 8.8: GDD: Effect of Medicaid Expansion on Opioid Prescriptions

	<i>Dependent variable:</i>
	Δ Opioid Rate
Medicaid Expansion	-3.220* (1.822)
Distance to Border	0.006 (0.024)
Medicaid Expansion*Distance to Border	0.013 (0.034)
Constant	-8.249*** (1.256)
Observations	1,267
R ²	0.004
Adjusted R ²	0.002
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

I gather non-parametric estimates of the effect of Medicaid expansion on the opioid epidemic using the “rdrobust” package in R. The package used a mserd bandwidth type and a triangular kernel. The optimal bandwidth selected by the package was 20.9 miles from the expansion border. These results are presented in Table 8.9. I present the conventional rdrobust estimate as well as the bias-corrected and robust estimates of the effects. All three non-parametric estimates correctly signed and statistically significant. Moreover, the non-parametric estimates are actually quite a bit larger, implying that Medicaid expansion reduced opioid usage by roughly 12 prescriptions per person.

Table 8.9: Non-Parametric RD Estimates of Effect of Medicaid Expansion on Opioid Usage

	<i>Dependent variable:</i>
	Δ Opioid Rate
Conventional	-11.569*** (5.238)
Bias-corrected	-12.167*** (5.238)
Robust	-12.167** (6.339)
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Nearly 20% of the sample experienced increases in opioid usage between 2014 and 2016. The 80per-

centile in changing opioid usage begins at -1.67. I use this to create the “increase” or “decrease” indicator used in the regression analyses. Results are similar to limiting the sample to just the cases with increases, rather using this data driven rule. Arkansas, Colorado, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, and Wisconsin had counties that experienced increased in opioid usage. Most of these counties are in states that did not expand Medicaid.

8.5 Medicaid Expansion Placebo Test

Here, I probe whether the Medicaid expansion effects on the opioid epidemic were driven by pre-treatment differences. Specifically, I conduct a placebo test to see if we observe similar expansion “effects” prior to the onset of Medicaid expansion, when logically we should observe no difference. In Table 8.10 I replicate the model from Table 8.8 in A4. However, this time I use change in the opioid rate from 2006 to 2008 (prior to Medicaid expansion) as the dependent variable. The results of the model show that there was no statistically significant relationship between a states future Medicaid expansion status and changes in its opioid rate from 2006 to 2008. If anything, unlike after expansion, Medicaid expansion counties experiences slightly greater increases in opioid usage, though estimate is not statistically significant.

Table 8.10: Placebo Test: Pre-treatment Changes in Opioid Rates in Expansion States?

	<i>Dependent variable:</i>
	Δ Opioid Rate (08-06)
Medicaid Expansion	2.453 (2.221)
Distance to Border	0.014 (0.030)
Medicaid Expansion*Distance to Border	-0.036 (0.042)
Constant	7.729*** (1.541)
Observations	1,170
R ²	0.003
Adjusted R ²	0.001
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

8.6 Main Election Results

In this section, I provide full regression tables for the main regression results from the GDD in Table 8.11 and replicate these results dropping the polynomial terms (presented alongside the original models for ease of comparison) in Table 8.12. The original analyses are nearly identical when dropping the polynomial terms from the GDD regression.

Table 8.11: Effects of Opioid Epidemic and Medicaid Expansion on Voting Behavior

	<i>Dependent variable:</i>				
	Δ Democratic Two Party Vote (2016-2012)				
	(1)	(2)	(3)	(4)	(5)
Opioid Increase	-4.475*** (0.534)				
Opioid Rate (2016)		-0.049*** (0.009)	-0.028*** (0.009)		
log(Opioid Rate)				-1.035** (0.492)	-0.589 (0.397)
Medicaid Expansion	3.300* (1.713)	6.684*** (2.306)	11.320*** (2.284)	10.555** (4.752)	17.911*** (4.208)
Opioid Increase*Exp.	-0.483 (1.069)				
Opioid Rate*Exp.		-0.009 (0.014)	-0.023* (0.013)		
log(Opioid Rate)*Exp.				-1.549* (0.911)	-2.171*** (0.811)
Dem. Vote (2004)	0.151*** (0.025)	0.123*** (0.025)		0.138*** (0.025)	
log(Median Income)			12.178*** (1.261)		13.059*** (1.238)
Unemployment Rate			0.685*** (0.146)		0.704*** (0.150)
% Less than H.S.			-0.100* (0.057)		-0.101* (0.058)
Constant	-10.480*** (2.371)	-6.416*** (2.373)	-138.083*** (8.760)	-5.675** (2.879)	-147.088*** (8.887)
State Fixed Effects	✓	✓	✓	✓	✓
Polynomial Terms	✓	✓		✓	
Population Weights	✓	✓	✓	✓	✓
Observations	1,266	1,272	1,272	1,272	1,272
R ²	0.385	0.406	0.521	0.370	0.510
Adjusted R ²	0.366	0.388	0.506	0.351	0.494

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 8.12: GDD Dropping Polynomial Terms

	<i>Dependent variable:</i>			
	(1)	(2)	(3)	(4)
Opioid Rate (2016)	-0.049*** (0.009)	-0.048*** (0.009)		
log(Opioid Rate)			-1.035** (0.492)	-0.992** (0.504)
Medicaid Expansion	6.684*** (2.306)	6.205*** (2.020)	10.555** (4.752)	10.321** (4.557)
Lagged Democratic Vote (2004)	0.123*** (0.025)	0.122*** (0.025)	0.138*** (0.025)	0.137*** (0.025)
Opioid Rate*Expansion	-0.009 (0.014)	-0.010 (0.014)		
log(OpioidRate)*Expansion			-1.549* (0.911)	-1.589* (0.912)
Constant	-6.416*** (1.664)	-6.038*** (1.492)	-5.675** (2.713)	-5.558** (2.624)
State Fixed Effects	✓	✓	✓	✓
Polynomial Terms	✓		✓	
Population Weights	✓	✓	✓	✓

Note:

*p<0.1; **p<0.05; ***p<0.01

8.7 Election Robustness Tests

In this section, I subject the main regression analysis to a series of robustness checks. Specifically, I probe whether findings are robust to including other rival explanatory factors. Across the models, the results remain qualitatively similar, further suggesting that the main effects are not spurious.

For example, we may worry that the effects of the opioid epidemic are driven by other general health effects. In Table 8.13 I probe this by re-estimating the main GRD model from the main text, this time controlling for changes in a county's diabetes rates. As can be seen, controlling for the changes in a county's diabetes rates does not substantively alter the opioid findings.

Table 8.13: Effects of Opioid Epidemic Controlling for Other Health Effects

	<i>Dependent variable:</i>
	Δ Democratic Two Party Vote
Opioid Rate (2016)	-0.049*** (0.007)
Medicaid Expansion	6.680*** (2.586)
Democratic Vote (2004)	0.122*** (0.012)
Δ Diabetes Rate	0.062 (0.067)
Opioid Rate*Medicaid Expansion	-0.009 (0.010)
Constant	-6.316*** (2.375)
State Fixed Effects	✓
Polynomial Terms	✓
Observations	1,272
R ²	0.407
Adjusted R ²	0.388
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

In Table 8.14 I assess the extent to which the uncovered opioid results are robust to accounting for the positive financial effects of the ACA/Medicaid expansion. Finkelstein et al. (2012) found positive financial effects in addition to physical and mental health gains. Specifically, I control for the changes in local health insurance rates. In Table 8.14 we see that controlling for these financial effects does not substantively alter the estimated effects of the opioid epidemic or Medicaid expansion on changes in Democratic voting. Changes in health insurance rates are positively related to Democratic support, though curiously somewhat less so in expansion states.

Table 8.14: Effects of Opioid Epidemic Controlling for Financial Effects of ACA

<i>Dependent variable:</i>	
Δ Democratic Two Party Vote	
Opioid Rate (2016)	-0.044*** (0.007)
Medicaid Expansion	7.070*** (3.228)
Democratic Vote (2004)	0.129*** (0.012)
Δ Pct. Insured	0.445 *** (0.080))
Opioid Rate*Medicaid Expansion	-0.002 (0.036)
Constant	-9.480*** (2.418)
State Fixed Effects	✓
Polynomial Terms	✓
Observations	1,272
R ²	0.419
Adjusted R ²	0.401
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

We may worry that some of what appears to be effects of the opioid epidemic is actually something related to opioid usage. Some have argued that areas with a lot of coal mining or coal workers are more likely to suffer negative fates via the opioid epidemic (Case and Deaton, 2021). To probe whether this affects my results, I drop West Virginia and Kentucky (the two highest coal producing states) from my analyses. I present the results from this analyses in Table 8.15. If anything, dropping these states strengthens the results.

Table 8.15: Effects of Opioids Dropping Coal States

<i>Dependent variable:</i>	
Δ Democratic Two Party Vote	
Opioid Rate (2016)	-0.049*** (0.007)
Medicaid Expansion	8.824*** (2.712)
Democratic Vote (2004)	0.117*** (0.013)
Opioid Rate*Medicaid Expansion	-0.028** (0.011)
Constant	-6.127** (2.428)
State Fixed Effects	✓
Polynomial Terms	✓
Observations	1,125
R ²	0.407
Adjusted R ²	0.387
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Next, I probe the robustness of the main results dropping all counties that rank in the bottom 10% of opioid epidemic severity (less than 24.6) and top 10% (greater than 129.9). Results for this analyses are presented in Table 8.16. As can be seen, the results are qualitatively similar.

Table 8.16: GDD Results Dropping Bottom and Top 10% of Opioid Observations

<i>Dependent variable:</i>	
Δ Democratic Two Party Vote	
Opioid Rate (2016)	-0.049*** (0.007)
Medicaid Expansion	6.684*** (2.586)
Democratic Vote (2004)	0.123*** (0.012)
Opioid Rate*Medicaid Expansion	-0.009 (0.010)
Constant	-6.416*** (2.373)
State Fixed Effects	✓
Polynomial Terms	✓
Observations	1,272
R ²	0.406
Adjusted R ²	0.388
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

In Table 8.17 I explore whether the effects of Medicaid and the opioid epidemic varied based on the political control of the states. To do so, I subset the original data into states that had Republican governors and Republican-controlled state legislatures during the 2016 election and compare the unconditional effects of Medicaid expansion and the opioid epidemic on changes in the Democratic Two Party share of the vote from 2012 to 2016. Specifically, I replicate the original models used in the main analyses, dropping the interaction between opioids and Medicaid expansion (results presented in column 2).¹ I provide the same estimates using the full GDD border sample in the first column for comparison.

First, the relationships between the opioid epidemic and Medicaid expansion on change in the Democratic vote are qualitative similarly between the models. The effect of Medicaid expansion on change in the Democratic vote is roughly 1 percentage point smaller in the GOP controlled states than in the full sample, perhaps suggesting that voters were more easily engage in this type of policy feedback when the partisan-alignment of the state government matched the incumbent federal Democratic Party. Interestingly, the effects of the opioid epidemic, although still substantively and statistically significant, are about half as large in magnitude in the GOP-controlled sample as in the full sample.

Why aren't the differences larger? Part of this is no doubt driven by the construction of the original border sample. Recall, most of the heavily Democratic states in the Northeast and California are excluded from the analyses because they do not border states with different Medicaid expansion statuses. More theoretically, this is consistent with prior research that has shown that voters tend to blame the president for more local experiences.

¹The main analyses showed essentially no-conditional relationship and the reduction in power from the drop sample size both suggest this is a wise decision.

Table 8.17: Heterogenous Effects of Medicaid and Opioid Effects, Full and GOP Samples

	<i>Dependent variable:</i>	
	Δ Dem Vote (Full)	Δ Dem Vote (GOP)
Opioid Rate (2016)	-0.053*** (0.007)	-0.026*** (0.008)
Medicaid Expansion	5.891*** (1.650)	4.995*** (1.909)
Democratic Two Party Vote (2004)	0.124*** (0.025)	0.079*** (0.040)
Constant	-6.216*** (1.635)	-7.248*** (2.125)
Observations	1,272	740
R ²	0.406	0.352
Adjusted R ²	0.388	0.332
<i>Note: clustered errors reported</i>	*p<0.1; **p<0.05; ***p<0.01	

8.8 Individual Election Results

In this section, I extend the county-level election analyses to probe the extent to which the county level opioid measures reliably predict individual level behavior. We may be worried that the aggregate results are driven by an ecological fallacy. In Table 8.18 I use survey data from the Voter Study Group Study (Sides et al., 2019) to assess the extent to which individual-level vote choice relates to the local opioid epidemic conditions. Specifically, I estimate a linear probability model of the probability of voting for Hillary Clinton over Donald Trump as a function of the respondents' local opioid rate, partisanship, educational level, race, income, gender, and state fixed effects. All observations are weighted according to provided survey weights and clustered standard errors are reported.

In Column 1 of Table 8.18, we see that as local opioid rates are worse, an individual's probability of voting for Hillary Clinton decreases. The model implies that a one standard-deviation increase in opioid usage (27 prescriptions per 100 people) in a respondents' community decreases their probability of voting for Hillary Clinton by 3 percentage points.

Table 8.18: Individual-Level Regression Results (Voter Study Group)

	<i>Dependent variable:</i>		
	Pr(Clinton)		
	(1)	(2)	(3)
Opioid Rate (2016)	-0.001** (0.0002)	-0.001** (0.0002)	-0.0003 (0.0003)
Health Care Important Now		0.098 (0.091)	
Know Someone Addicted			0.063 (0.040)
Republican	-0.341*** (0.033)	-0.343*** (0.033)	-0.343*** (0.034)
Democrat	0.502*** (0.034)	0.510*** (0.035)	0.499*** (0.035)
Education Level	0.021*** (0.005)	0.020*** (0.005)	0.020*** (0.005)
Non-white	0.064*** (0.019)	0.053*** (0.018)	0.065*** (0.019)
Family Income	-0.001 (0.002)	-0.0004 (0.002)	-0.001 (0.002)
Female	0.059*** (0.015)	0.049*** (0.015)	0.058*** (0.015)
Opioid Rate*Health Important Now		-0.002** (0.001)	
Opioid Rate*Know Someone Addicted			-0.001* (0.001)
Constant	0.321*** (0.087)	0.319*** (0.088)	0.307*** (0.091)
State Fixed Effects	✓	✓	✓

Note: clustered errors reported *p<0.1; **p<0.05; ***p<0.01

In Column 2, I extend these analyses by probing a potential mechanism: health care importance. Specifically, I assess whether the effects of the opioid epidemic are larger for individuals who report health care as being important to them in 2016, but not in 2012. Again, drawing on Hopkins (2010), I have argued that these effects are likely to be observed in 2016 and not 2012 due to the new salience of the issue. As a result, we ought to expect larger effects for people who report new concern about health care. As the results of Col-

umn 2 Table 8.18 show, this is indeed the case. The results of the model imply that the effects of the opioid epidemic are nearly 400% larger for these individuals and suggest that a one standard deviation increase in the opioid epidemic decreases respondents' with newly found health care concerns probability of voting for Hillary Clinton by 8 percentage points.

In Column 3, I probe another potential mechanism: personal knowledge of someone addicted to opioids. Using the survey item from ? on personal knowledge of someone addicted to painkillers, I assess whether respondents with personal knowledge of a painkiller addict in areas where the opioid epidemic is more severe are less likely to vote for Hillary Clinton. Others have found that personal knowledge of an opioid overdose victim can affect political behavior (Kaufman and Hersh, 2020). The results imply that individuals in places with high opioid usage rates and personal knowledge of a painkiller addicted were much less likely to vote Hillary Clinton. A one standard deviation increase in the severity of the opioid epidemic is associated with a 3 percentage decrease in the probability of voting for Hillary Clinton.

CHAPTER 9

Chapter 5 Appendix

9.1 Data Sources and Descriptive Statistics

In this appendix section, I provide information on data sources, descriptive statistics, and the matching process. Table 9.1 provides a list of states that experienced rural hospital closure crisis between 2010 and 2018. The text coloring indicates party of the governor of the state at the time of the closure (red is Republican, blue is Democratic). States that had expanded Medicaid (2013-2018) at the time of the closure are bolded. Data on location and timing of hospital closures come from UNC Sheps Center. Accessed June 2020.

Table 9.1: States with Hospital Closures (by year)

2010	2011	2012	2013	2014	2015	2016	2017	2018
CA	AL	AL	AL	GA	AZ	GA	FL	CA
MN	AZ	AZ	CA	KY	KS	IL	NC	GA
SD	KS	GA	GA	MA	KY	KY	NY	KS
	WI	MI	ME	MO	ME	MO	TN	MO
		OH	NC	NC	MN	MS	TX	NY
		PA	TN	NE	MO	OK	VA	OK
		SC	TX	OH	MS	SC		SC
		TN	VA	PA	NC	TN		TN
				TN	NV	TX		TX
					SC			
					TN			
					TX			

The coloring indicates party of the governor of the state at the time of the closure (red is Republican, blue is Democratic). States that had expanded Medicaid (2013-2018) at the time of the closure are bolded.

All county-level demographic data come from the 2014 ACS Census 5 year estimates. All county level health care data come from Robert Wood Johnson foundation 2018 estimates. In Table 9.2 I provide descriptive statistics for the closure counties, the naive control counties, and the counties included in the final control group. In Table 9.3 I show that the balance observed at the county level also held at the individual level. In Figures 9.1, 9.2, 9.3, I provide QQ plots demonstrating the improvement in balance between the treatment and control units.

Table 9.2: Demographics of Treated and Untreated Units

Variable	Closure	Control (Before)	Control (After)	Diff	% Improved
Population	23841.3	106234.8	23216.5	624.7	99.9
% White	75.9	83.4	75.2	0.6	99.2
% Less than HS	18.2	13.2	18.5	-0.3	91.2
Median Income	42154.6	51979.3	42431.1	-276.6	93.3
%College +	15.6	21.8	15.4	0.2	97.2
% in Poor or Fair Health	21.0	17.3	20.9	0.0	97.3
% Uninsured	15.6	11.8	15.5	0.1	97.0

Comparison of Treated and Non-treated Counties after Matching. In total, the MatchIt algorithm created a matched sample of 148 counties (74 closure counties and the 74 most similar rural counties).

Figure 9.1: Balance on Covariates via Matching

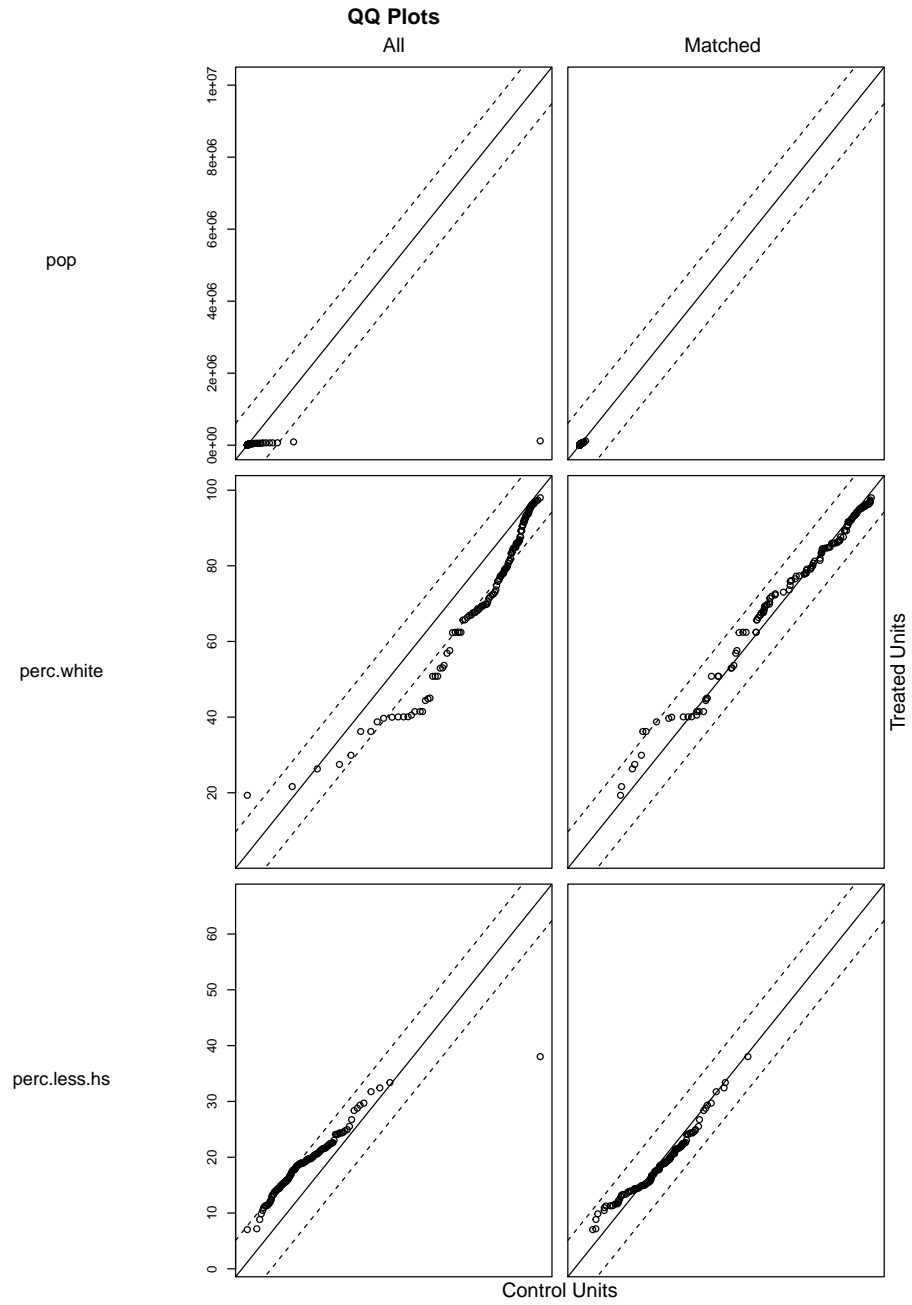


Figure 9.2: Balance on Covariates via Matching

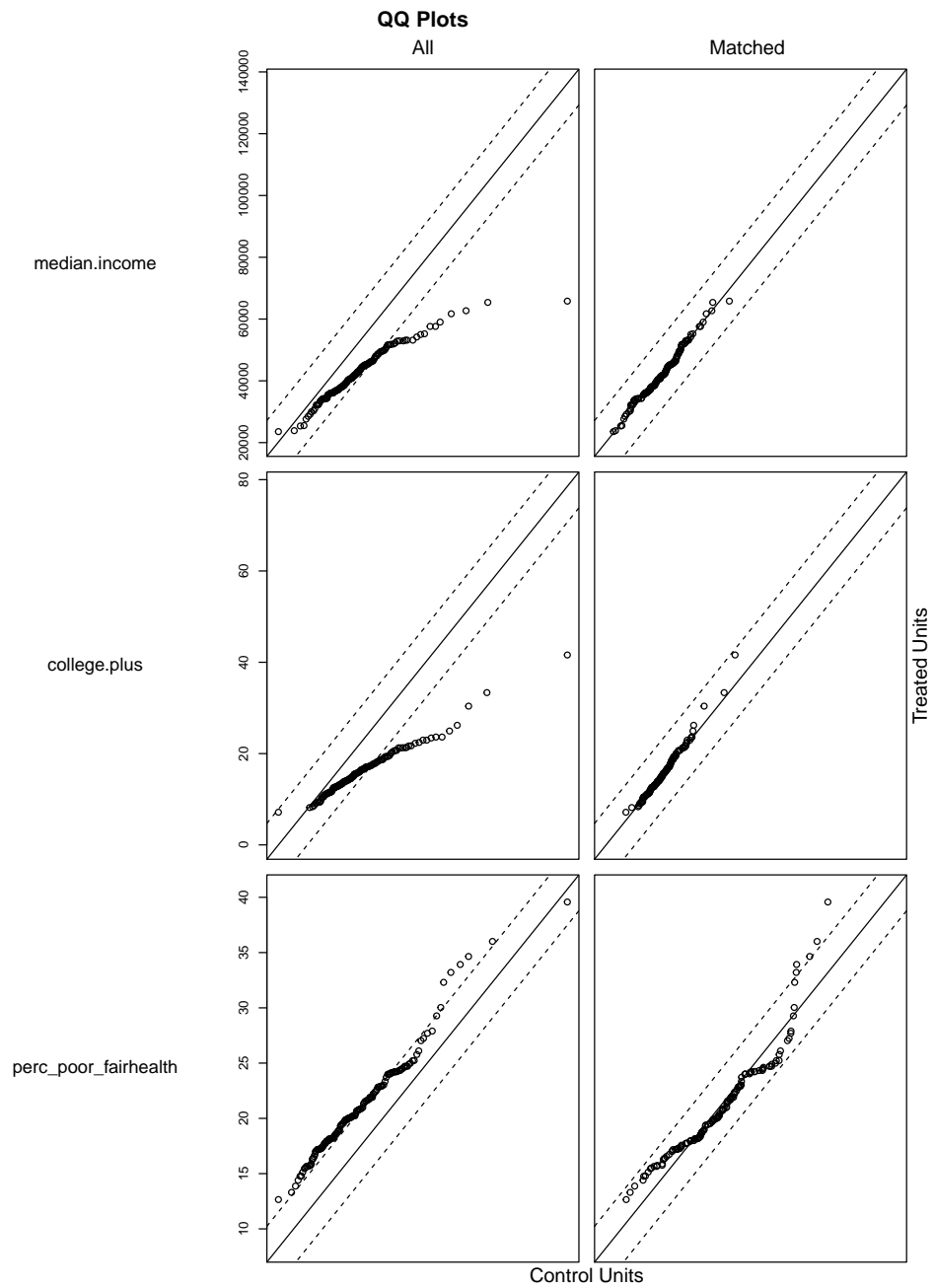


Figure 9.3: Balance on Covariates via Matching

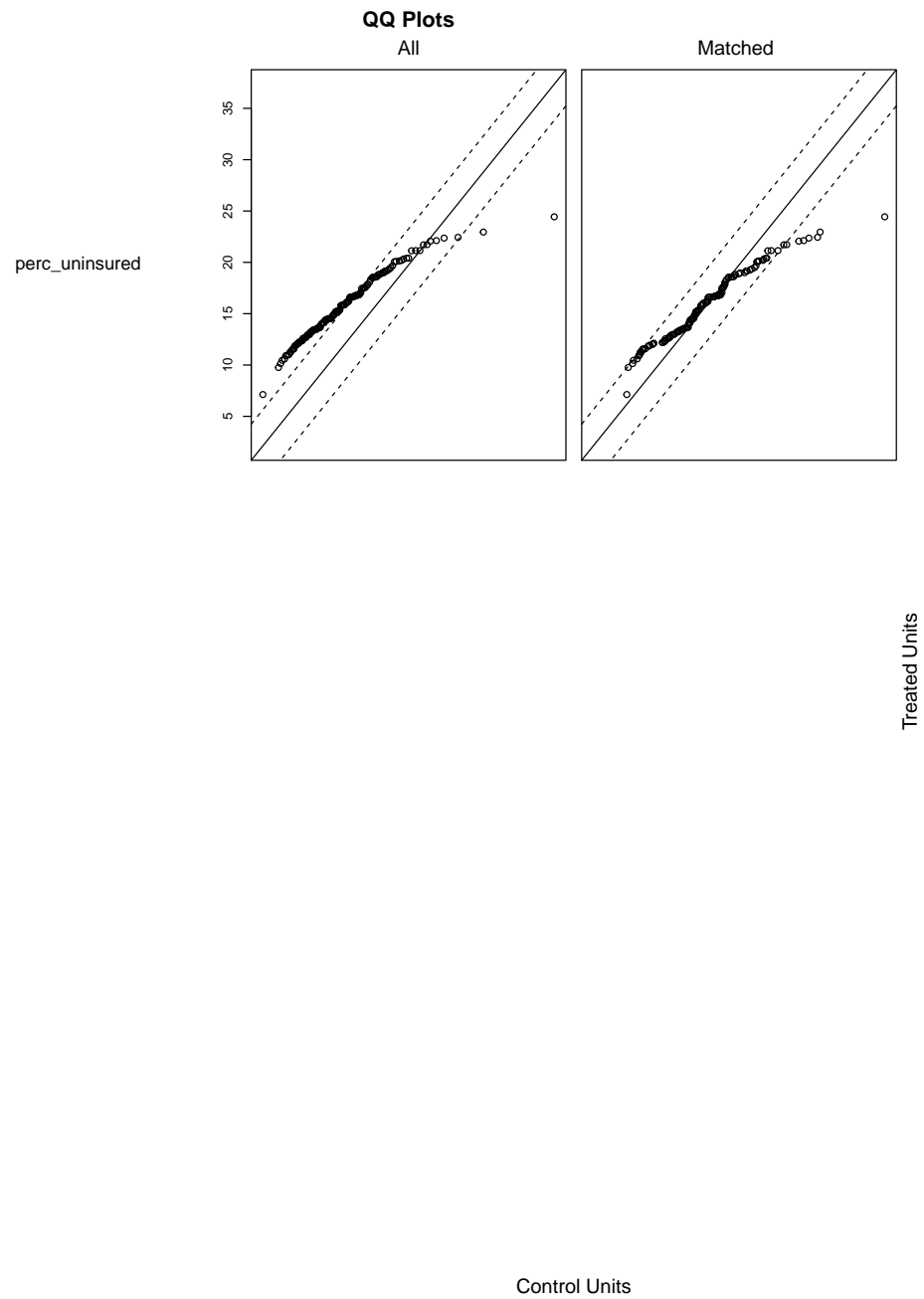


Table 9.3: Comparison of Treated and Untreated Respondents

Variable	Final Treatment	Final Control	Difference	<i>p</i> -value
Age	50.20	50.51	-0.31	0.58
Female	0.61	0.57	0.04	0.01
Black	0.10	0.15	0.04	0.01
Hispanic	0.03	0.03	0.00	0.84
100k + Family Income	0.17	0.17	0.00	0.78
4yr College Education +	0.22	0.22	0.00	0.61
Democrat	0.33	0.37	-0.04	.05
Republican	0.44	0.42	0.02	0.16

CCES Respondent Demographic Balance between Treated and Non-treated Counties; $n = 6049$.

9.2 Mechanisms Analyses

In this section, I provide the full regression results for the mechanism analyses examining the impact of hospital closures on presidential approval, economic retrospection, and ACA attitudes. In Table 9.4, I show that presidential approval and economic retrospection are directly related to presidential voting in 2016. In Table 9.5, I analyze the impact of hospital closures (conditional on partisanship) on economic evaluations and attitudes toward the ACA under Obama and Trump separately I show that hospital closures led independents to view the economy to be worse off and hold less approving . Closures do not impact Democratic and Republican evaluations of the economy, presidential approval, or attitudes toward the ACA. These offer plausible mechanistic explanations for why observe the conditional impacts of hospital closures on presidential voting.

Table 9.4: Mechanism Association Results

	<i>Dependent variable:</i>	
	Voted for Trump	
	(1)	(2)
Economic Retrospection	-0.083*** (0.012)	
Presidential Approval		-0.176*** (0.009)
Republican	0.080** (0.031)	0.039 (0.025)
Democrat	-0.614*** (0.037)	-0.268*** (0.035)
Female	-0.009 (0.021)	-0.0003 (0.017)
Age	0.001** (0.001)	0.0004 (0.001)
Black	-0.170*** (0.034)	-0.063** (0.028)
Hispanic	-0.071 (0.058)	0.004 (0.047)
Over 100k	0.005 (0.027)	0.018 (0.022)
College Educated	0.004 (0.024)	-0.013 (0.019)
Constant	0.972*** (0.057)	1.109*** (0.043)
Observations	622	625
R ²	0.738	0.830
Adjusted R ²	0.734	0.827

Note: *p<0.1; **p<0.05; ***p<0.01

Table 9.5: Mechanism Results: Economic Retrospection and Health Care Attitudes

	<i>Dependent variable:</i>			
	Economic Retrospection		Support the ACA	
	(Obama)	(Trump)	(Obama)	(Trump)
Hospital Closure	-0.241*** (0.093)	0.106 (0.114)	-0.074* (0.042)	-0.083 (0.052)
Democrat	0.745*** (0.056)	-0.312*** (0.108)	0.336*** (0.029)	0.284*** (0.049)
Republican	-0.375*** (0.054)	0.941*** (0.101)	-0.218*** (0.029)	-0.272*** (0.046)
Female	-0.099*** (0.036)	-0.375*** (0.055)	0.001 (0.018)	0.037 (0.025)
Age	-0.001 (0.001)	0.010*** (0.002)	-0.001 (0.001)	-0.003*** (0.001)
Black	0.318*** (0.056)	0.008 (0.083)	0.068** (0.027)	-0.005 (0.038)
Hispanic	0.021 (0.095)	-0.164 (0.147)	0.009 (0.048)	0.043 (0.067)
Over 100k	-0.015 (0.047)	0.176** (0.070)	0.024 (0.024)	-0.025 (0.032)
College Educated	0.228*** (0.043)	0.085 (0.063)	0.019 (0.022)	0.065** (0.028)
Hospital Closure*Democrat	0.276** (0.117)	-0.160 (0.146)	0.067 (0.053)	0.097 (0.066)
Hospital Closure*Republican	0.348*** (0.113)	0.047 (0.137)	0.056 (0.052)	0.050 (0.062)
Constant	2.227*** (0.086)	2.677*** (0.127)	0.434*** (0.042)	0.565*** (0.058)
Year Fixed Effects	✓	✓	✓	✓
Observations	2,839	1,302	2,113	1,302
R ²	0.290	0.391	0.299	0.289
Adjusted R ²	0.285	0.386	0.294	0.282

Note:

*p<0.1; **p<0.05; ***p<0.01

9.3 Presidential Results

In this section, I provide the full regression results for all presidential election analyses. Table 9.6 presents the full regression results for the individual level presidential election analyses found within the main text. The graphical depiction of the marginal effects within the main text is based on column 4 of this table.

Table 9.6: Individual Level Presidential Election Results

	<i>Dependent variable:</i>	
	Voted Romney (1)	Voted Trump (2)
Hospital Closure	0.035 (0.201)	0.115* (0.068)
Democrat	-0.411*** (0.063)	-0.639*** (0.054)
Republican	0.415*** (0.060)	0.130** (0.051)
Female	-0.059* (0.033)	0.017 (0.025)
Age	0.001 (0.001)	0.001 (0.001)
Black	-0.124** (0.057)	-0.195*** (0.044)
Hispanic	-0.236* (0.122)	-0.093 (0.072)
Over 100k	0.016 (0.042)	0.022 (0.033)
College Educated	0.009 (0.037)	-0.013 (0.029)
Hospital Closure*Democrat	-0.086 (0.258)	-0.176** (0.078)
Hospital Closure*Republican	-0.132 (0.242)	-0.126* (0.075)
Constant	0.506*** (0.112)	0.780*** (0.090)
State Fixed Effects	✓	✓
Observations	314	502
R ²	0.742	0.733
Adjusted R ²	0.711	0.713

Note: *p<0.1; **p<0.05; ***p<0.01

9.3.1 County-level Presidential Results

Here, I provide the results and assumption test for the county-level *difference-in-differences* analyses. In Figure 9.4 I show that prior to experiencing rural hospital closures, treated and untreated communities experienced similar trends in presidential voting. Table 9.7 provides the full regression analyses for the county level DiD.

Figure 9.4: Treatment and Control Parallel Trends

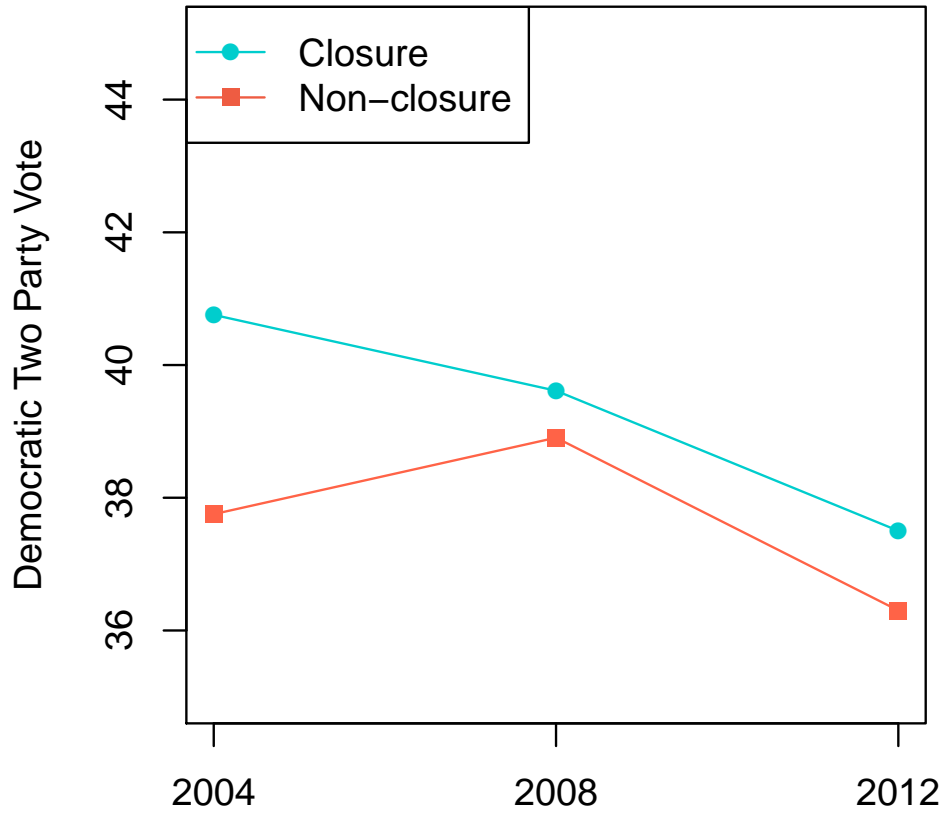


Table 9.7: County Level Treatment Effect Estimates

	<i>Dependent variable:</i>	
	Δ Democratic Vote (2012-2016)	
	(1)	(2)
Hospital Closure	-0.892** (0.393)	-1.038*** (0.376)
Percent White		-0.036*** (0.014)
Percent Less than HS		-0.116*** (0.044)
Percent Poor Health		0.259*** (0.074)
Percent Uninsured		-0.022 (0.081)
Median Income		0.0002*** (0.00003)
Constant	-3.877*** (0.707)	-11.429*** (2.957)
State Fixed Effects	✓	✓
Observations	250	250
R ²	0.608	0.678
Adjusted R ²	0.553	0.623
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01	

9.4 Gubernatorial Results

In this section, I provide the full regression results for the gubernatorial election analyses. Table 9.8 presents the full individual-level analyses found within the main text. I show that hospital closures have no impact on gubernatorial voting in between 2014-2018.

Table 9.8: Individual Level Gubernatorial Election Results

	<i>Dependent variable:</i>		
	Voted GOP for Governor		
	(2014)	(2016)	(2018)
Hospital Closure	0.121 (0.112)	-0.077 (0.142)	-0.062 (0.071)
Democrat	-0.524*** (0.090)	-0.811*** (0.129)	-0.557*** (0.065)
Republican	0.260*** (0.084)	-0.038 (0.125)	0.252*** (0.062)
Female	0.014 (0.050)	0.053 (0.052)	0.0004 (0.025)
Age	-0.0001 (0.002)	0.001 (0.002)	0.001* (0.001)
Black	-0.266** (0.123)	-0.004 (0.091)	-0.133** (0.057)
Hispanic	-0.244 (0.160)	0.007 (0.135)	-0.114 (0.075)
Over 100k	0.036 (0.056)	-0.021 (0.079)	0.074** (0.030)
College Educated	-0.067 (0.054)	0.005 (0.059)	-0.037 (0.027)
Hospital Closure*Democrat	0.101 (0.148)	0.025 (0.160)	-0.026 (0.083)
Hospital Closure*Republican	-0.205 (0.128)	0.129 (0.161)	0.027 (0.076)
Constant	0.736*** (0.153)	0.878*** (0.199)	0.613*** (0.083)
State Fixed Effects	✓	✓	✓
Observations	200	135	526
R ²	0.612	0.704	0.695
Adjusted R ²	0.556	0.664	0.679

Note: *p<0.1; **p<0.05; ***p<0.01