A Case of Misunderstood Identity: The Role of Rural Identity in Contemporary American Mass Politics

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For my dad,

who did so much to help me get here,
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Rest in peace.

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CHAPTER 1: Rural Identity in American Political Behavior

Urban-rural polarization in the United States is not new, but it seems to be increasingly prominent in American politics in the past several decades, particularly since the end of the 2000s. Why do rural areas tend to be more right-wing, particularly in the contemporary U.S.? Some have argued that this difference stems from geographic sorting; i.e., that the demographic groups that tend toward supporting the Republican Party also tend to live in rural areas (older, whiter, non-college educated, more religious, etc.), while those groups who tend to support Democrats tend to move to or live in metropolitan areas (younger, non-white, college educated, etc.) (Bishop 2008). Once people geographically sort, then the echo chamber effect of homophily comes into play (Gimpel et al. 2020). Some scholars, however, have argued that this is not a comprehensive explanation, saying that other factors beyond sorting have driven the urban-rural divide. These factors most typically include elements such as different local economic characteristics (Rodden 2020; Scala et al. 2015) and different cultural or psychological differences related to place (Cramer 2012; 2016; Munis 2020; Lyons and Utych 2021; Parker et al. 2017).

However, some scholars have found that geographic sorting does not even account for the majority of the urban-rural difference in voting (Martin and Webster 2018). Further, geographic sorting and homophily are limited explanations because they do not account for why certain people live in certain places in the first place, while also assuming the political psychology behind political attitudes across the urban-rural divide is the same. I, among others, argue that this is not the case. For example, existing studies

on rural public opinion and political behavior in American politics particularly highlight anti-elitist and anti-big government tendencies, rather than being *strictly* right-leaning. Cramer (2016) finds rural identifiers to be particularly inclined toward "outsider" Republican Tea Party candidates such as Scott Walker, as well as distrust of public officials. Historically, the People's Party in the United States was very strongly rooted in agricultural concerns during the Gilded Age, as rising food prices pitted rural, Southern, and agricultural producer interests against metropolitan consumer interests that led to moralistic distinctions between rural and urban areas (Macleod 2009; Trachtenberg 2007). Similarly, anti-intellectualism (a component of anti-elitism and populist sentiment) was found to be strong in parts of rural America before and during the middle of the 20th Century (Hofstadter 1963). Although the anti-elitism has shifted from resentment of politicians, the rich, and intellectuals/experts to just politicians and intellectuals/experts, it seems that populist tendencies in particular run strong in the rural United States.

Therefore, while geographic sorting and economic differences undoubtably contribute, psychological and cultural differences between urban and rural America are an important but not well understood or researched factor when considering the political differences in this division. This project therefore delves further into *rural identity* – a psychological attachment to rurality or small-town life that encompasses a particular set of values and worldview – and its role in American politics. Rural identifiers tend to psychologically attach themselves to where they live, as they perceive their surroundings as an indicator of a broader cultural and values-based difference between rural and non-rural America (Cramer 2012; 2016; Lyons and Utych 2020; Parker et al. 2018).

My first major contribution is in clarifying what rural identity is not. Unlike previous scholarship on rural identity in political science, I argue that rural identity in the contemporary United States is not determined by its affiliation with the white working class or economic concerns, nor is it primarily based on anti-urban resentment *per se.* Rural identity is not tied to working-class concerns or working-class identity, as is commonly thought (Cramer 2012), because Social Identity Theory (SIT) predicts that intergroup dynamics rest mostly on symbolic and/or non-material concerns relating to group respect and norms (Huddy 2003). As I show in a later chapter, I indeed find that rural social identity is not affiliated with working class indicators (if anything, it is more affiliated with the rural middle to upper class,) nor is it strongly tied to personal economic concerns. Thus, it is not primarily based in individual *class* or *economic* interests but *symbolic* and *status-based concerns.* That said, group threat is likely triggered by local economic decline, but this dynamic does not depend on individual level decline or personal economic characteristics or threats. At one point, rural identity and consciousness in the U.S. were indeed rooted in individual and group class and economic concerns – most certainly during the Gilded Age – but has since become more symbolic.

I also said above that rural identity is not defined by anti-urban resentment – again going against conventional wisdom – which leads me to talk about what rural identity is. I argue that such resentment extends more to specific urban-affiliated groups but not to all urban residents. Rural social identifiers – particularly white rural social identifiers – occupy a middle status group within the group status hierarchy, rather than a low status one as suggested by previous literature. According to SIT, such a position encourages distinction – and resentment – against the higher status group or groups while also

creating distance from lower status groups via negative comparisons to maintain higher group status. This has resulted in most rural social identifiers being amenable to right-wing populism, whether it be construed as a thin ideology (Mudde and Kaltwasser 2013) or not because it naturally conforms to this middling position. Rural identifiers can feel positive ingroup pride by perceiving themselves as the morally good people being forgotten or looked down upon by elites – typically affiliated with urban areas and the coasts – who, under right-wing populism, favor lower status groups perceived as undeserving and cutting ahead in line (for instance, immigrants) (Hochschild 2016).

Rural identity – especially for those on the right - thus has (at least) two urban-affiliated out-groups: 1) experts and intellectuals, and, 2) immigrants or other lower-status groups; the lower-status out-groups are something not fully covered in existing literature, such as work by Cramer (2012; 2016). This explains why rural areas tend to be particularly unhospitable to immigrants (Fennelly and Federico 2008), even before the Tea Party and the Trump presidency, as well as being more prone to anti-intellectualism and suspicion of scientific and medical expertise and recommendations (Callaghan et al. 2021; Hofstadter 1963), which has important consequences not just for understanding public opinion and political behavior, but also for public health and science communication.

Undergirding this broader argument of what rural identity is and is not regarding political outcomes, my study contributes to the nascent literature of rural identity in contemporary American politics by asserting three things.

First, addressing the rural identity out-group as metro areas or urban areas does not adequately capture the complex dynamic of rural areas and the nature of their

relationship and concerns *vis a vis* other groups in society. Urban areas are a geographic signifier of certain groups occupying those spaces, such as experts, professionals, and intellectuals, as well as lower status groups such as immigrants and the (racialized) urban poor. Further, metro areas contain other groups that may be seen neutrally or even positively by rural residents.

Second, this study further delineates what it *means* to have a rural identity; what is the content and nature of it, particularly throughout the United States. I, unlike other scholars, argue that rurality itself constitutes a group, while others have interpreted ethnographic work on rural identity by scholars such as Cramer (2012; 2016) to be referring simply to place-based attachment or resentment (Farhart and Sheagley n.d.; Munis 2020). In contrast, I argue that there is a particular characteristic of low population density that encourages feelings of being passed over or looked down upon by those closer to loci of power; such feelings have long historical legacies in the U.S. (Hofstadter 1963) and potentially elsewhere.

Third, this study also adds to the debate surrounding how to best measure the urban-rural continuum when considering political outcomes. Recent work by Nemerever and Rogers (2020) suggests that a way to do so in political science is oftentimes to measure subjective identification along the urban-rural continuum, as objective measures (such as Census or USDA designations) do not adequately capture where people *feel* they belong, and the *feeling* ultimately determines other attitudes and behaviors rather than the objective categorization. Measuring the strength of group identification allows us to better isolate underlying norms, values, and dynamics driving the perceived differences between urban and rural America.

Therefore, a better understanding of rural identity can provide a major contribution to literature on the urban-rural political divide – and to political behavior and public opinion - in the social sciences (and beyond) because it clarifies the subjective beliefs and the underlying perceived differences in values and worldview associated with population density. Although in this project I only examine the contemporary United States, I suspect that my work here could explain why rural areas tend to have more populist predilections not just in recent years in the U.S., but also in other Western developed countries historically and today (though this, of course, is a direction for future research). I present evidence for the above assertions by drawing from a series of original surveys and survey experiments conducted between 2016 and 2020, as well as other survey datasets such as the Cooperative Congressional Election Studies and the American National Election Studies 2019 pilot. In addition, I also use county-level demographics and economic data compiled from various sources. This methodological approach is a departure from much of the previous work on rural identity in the social sciences; I do so because my primary aim is hypothesis testing based on scholars such as Cramer (2012; 2016) at the national level. Further, given that my theoretical approach relies on ideas from social psychology, I also employ methods used by this field (such as survey experiments) to verify findings.

I proceed with my argument as follows. In Chapter 2, I first review the characteristics and explanations of the urban-rural divide in existing literature, and then consider in particular the expected role of rural identity in American public opinion and political behavior, including what gaps exist in our understanding of the topic. I also discuss the theoretical underpinnings of identity – particularly social identity – as well as

populism to build my argument. Then, I lay out a plan of action for empirical analysis. Next, in Chapter 3, using original survey data I detail my primary measure of rural social identity, based on Huddy et al. (2015)'s partisan identity strength scale. I use this measure to examine affect toward urban and rural areas, who rural identifiers are, what their partisan and ideological (symbolic and operational) tendencies are, and their attitudes toward immigration, anti-political elitism, and anti-intellectualism – three dimensions which are strongly tied to populism. Here I find that rural identity tends to be rooted more in positive in-group affect rather than negative affect or resentment toward urban areas, contrary to previous work (Cramer 2016). Rural identity strength does not differ between rural respondent race or ethnicity. Further, rural identifiers are more likely to identify as conservative and support Trump, though operationally they are not more conservative on economic or social issues. As expected, rural identity is strongly affiliated with more restrictive immigration attitudes and anti-intellectualism. These tendencies hold for non-white rural identifiers as well as white rural identifiers.

In Chapter 4, using original survey data and a county-level dataset, I examine the role of class and education – an oftentimes associated characteristic of both rural identity and populist tendencies – to examine how much economic interests play a role. SIT suggests that material interests should play less of a role compared to symbolic and status-based interests (Huddy 2003). I find that rural identifiers are not more likely to be working class, lower in education level, or poorer. In fact, when there is a significant relationship between rural identification and class variables, it is the middle to upper class individuals who tend to be rural identifiers. However, the rural identifiers in local areas that recently suffered economic decline have a much stronger tendency to support Trump

– a right wing populist president whose support is predicted by rural identity – compared to stronger rural identifiers in locales that have been doing well since the Great Recession. Given the findings from this chapter, I conclude that rural identity is indeed a symbolic or status-based phenomenon that does take into account local or group-based threats (rather than individual material threats), as would be expected by SIT. This runs counter to many scholars' and popular commentators' assumption that the white working class being nearly interchangeable with rural areas when it comes to explaining political outcomes and the concerns of rural America (Cramer 2012; Fukuyama 2018). This chapter's findings also account for the role of other noted factors of the urban-rural divide being less prominent in explaining vote choice, such as manufacturing and agricultural dependence (Rodden 2020; Scala et al. 2015).

In Chapter 5, I look at rural identity and respect toward rural areas in relation to immigration and affect toward immigrants – particularly undocumented immigrants – via cross-lagged models and an original survey experiment. I find that increases in rural social identity for whites correspond to less pro-immigration policy attitudes later on, but not vice versa; this finding does not hold for non-white respondents. In addition, being experimentally exposed to sympathetic language about the perceived disrespect of rural areas in broader culture *increases positive* affect toward undocumented immigrants compared to the control group for rural respondents and white rural respondents; it is unclear what occurs with non-white rural respondents due to a small sample size. Further, there is no significant difference between the control group's attitudes toward undocumented immigrants when exposing rural participants to either the economic inequality between rural-urban areas or to potential concerns over demographic increases

in non-white populations in rural areas (mostly due to immigrants and immigrant populations).

Next, in Chapter 6 I look at the role of anti-intellectualism, or distrust of experts and intellectuals, in rural identity. Anti-intellectualism is strongly related to populist sentiment and is a known predictor of a host of attitudes and behaviors that go against scientific and medical consensus (Merkley 2020; Motta 2018; Oliver and Rahn 2016). Using survey data and experimental evidence, I find that rural identity is strongly associated with both anti-intellectualism and health/science misinformation adoption. Further, in an experiment, I also find that activating rural identity for rural respondents increases anti-intellectualism. Finally, Chapter 7 ties together the findings in the previous chapters, reiterates the argument, discusses this study's implications and limitations, and provides avenues for future research and exploration.

With this project, my hope is to further advance our understanding of not just rural public opinion and political psychology, but political behavior more broadly. It aims to move beyond stereotypical accounts of what it means to be rural; popular culture and even parts of academia paint residents of the countryside as either idyllic and pure, or backwards, working-class white supremacists. Instead, I try to answer questions of why rural areas tend to think and act different politically using an approach grounded in group-based psychology. Rural identifiers and what they believe in are not wholly good or bad, and as in any study of group-based behavior, I acknowledge that not all trends and relationships I present here are true of all individuals within that group. However, politics – especially in the contemporary United States – are dominated by tribalism and intergroup competition for respect, status, and dignity (Fukuyama 2018), and for this

reason some essentializing and simplification are needed to understand broader group-based trends and large-scale concerns. Throughout this work, I strive to strike a balance between highlighting how the political attitudes of many rural residents are misunderstood and misrepresented, while also remaining clear-eyed and unapologetic about the potentially problematic or worrisome tendencies that could help jeopardize the functioning of our society as well as the health of American democracy – and the health and safety of Americans themselves.

CHAPTER 2: The Urban-Rural Divide and Rural Identification as "the People"

"People in small towns, much more than in cities, share a destiny."
- Richard Russo

Why do rural areas tend to be more right-wing, particularly in the contemporary U.S.? In the following chapter, I begin to answer this question and accomplish several things. First, I provide further context on what the urban-rural divide is and existing explanations for what drives it. I then focus on the role of rural identity and cultural differences between rural and urban America, while also discussing the gaps within existing studies on rural identity. Second, I turn to a review of Social Identity Theory (SIT), which can help fill some of these gaps by illuminating expectations of group hierarchies and how the groups will act and think based on their relative status. Third, I review definitions of populism and how populism provides an appealing ideological framework that adequately encompasses both concerns that are specific to rurality and that speak to its middle group status in society.

Next, I synthesize these different strands of literature to explain my overarching argument and the expectations for the subsequent chapters: that rural identity is concerned with *symbolic* and not *material* matters and positions its out-groups as elites/experts and immigrants or other low-status outsiders, both of which are urban-adjacent. These tendencies help explain why rural areas in the United States are less supportive of more open immigration policies, are more supportive of "outsider" or populist candidates, and why rural areas are more closed off to attitudes informed from scientific and health expert consensus. Further, rural areas are generally associated with conservatism but not fully – for instance, stronger rural identifiers are not more or less likely to be Republicans than weaker rural identifiers (see Chapter 3; Munis 2020) – as

right-wing populism has not neatly fit onto the Republican platform in the past few decades (Oliver and Rahn 2016).

Finally, I close the chapter by briefly outlining the data sources of this project, as many of the same data sources appear in different chapters to provide evidence for different facets of the overall argument. My argument largely rests on survey and survey experiment data conducted via Lucid or YouGov between 2018 and 2020, though I also incorporate a county-level data set I created from various sources, including the Census, the United States Department of Agriculture, and other similar sources.

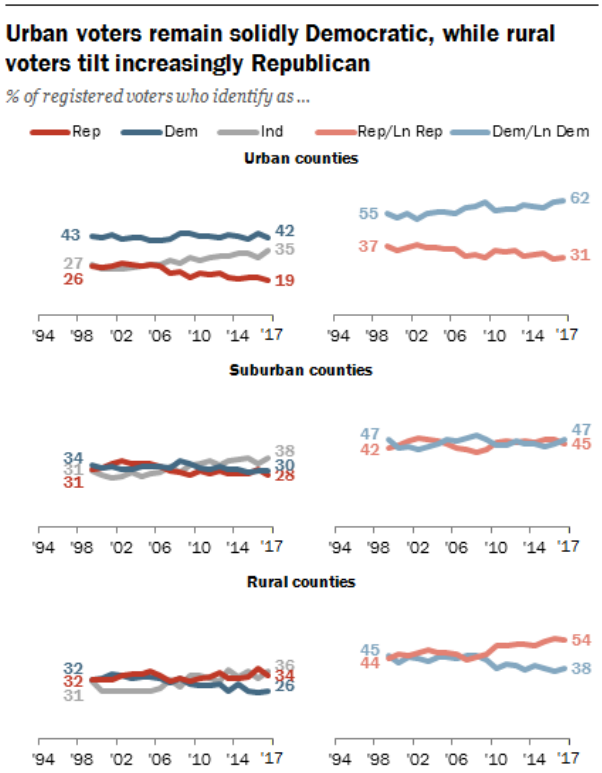
How Do Rural Areas Differ, and Why?

The Urban-Rural Political Divide

Probably the most talked-about difference between rural and non-rural areas[1] in the United States, politically speaking, has been in terms of recent presidential vote choice and partisanship. After the 2016 presidential election, many public figures and scholars discussed the presence of a urban-rural voting divide, with 62% of rural areas supporting Donald Trump and urban areas overwhelmingly voting for Hillary Clinton (Morin 2016). Maps of the United States showing county or district presidential vote share by party revealed blue metro islands in a sea of red. The urban-rural divide in voting and partisanship in the United States has therefore become linked with Donald Trump in many of these post-election accounts, leading some to conclude that theories explaining the rise of Donald Trump also explain the seemingly new urban-rural divide in American politics.

[1] Please see the chapter appendix for an in-depth discussion of how rural and urban are measured in the context of the present study.

Figure 2.1: *Registered voters in the U.S. by urban, suburban, and rural designated counties.*

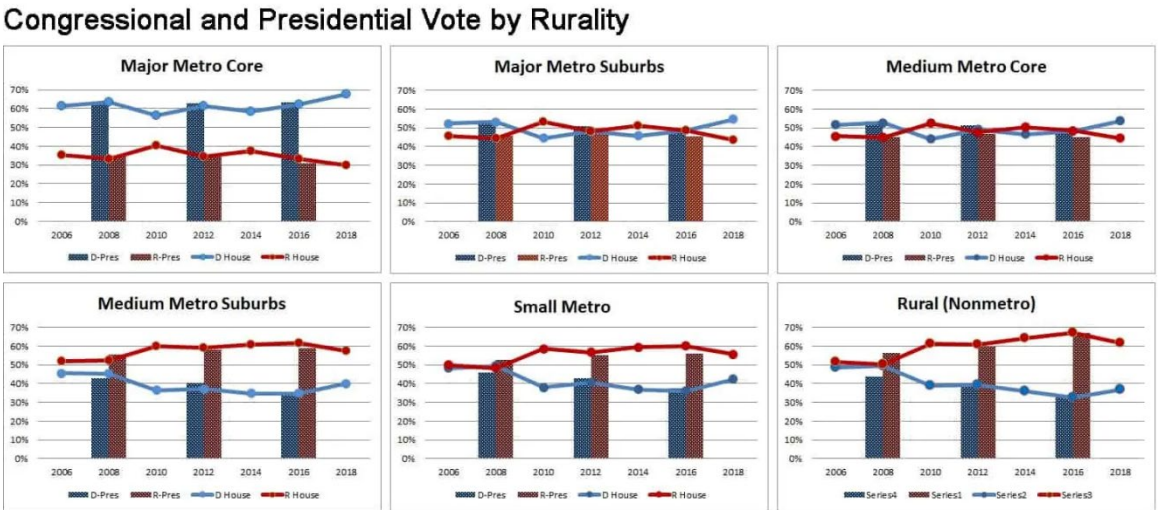


However, contrary to this narrative, urban-rural polarization did not suddenly appear in 2016 (Figure 2.1 above). According to Pew Research, for example, voter registration by county has polarized along the urban-rural continuum especially since the late 2000s. If one looks at the right-hand side of this figure, the Republican/Lean Republican trend line for rural counties jumped toward Republican support in the late 2000s, while for urban counties, Republican support has slowly but steadily been decreasing. Similarly, some scholars noted a urban-rural divide in the 2000 and 2004 presidential elections where there previously had been none (Gimpel and Karnes 2006; McKee 2007). Rodden (2019, pg. 6) finds a nearly 50-percentage point difference in county-level presidential candidate vote share between the most and least population

dense counties in the mid to late 2010s. In 1960, this was a 15-percentage point difference. Other scholars have noted recent urban-rural differences in partisanship and various ideological attitudes; across the board, non-metropolitan areas tended to be more Republican and more conservative on issue stances, than metropolitan areas in 2012 and in 2016 (Scala and Johnson 2017). This study also notes that immigration and racial attitudes appear to be the most divisive issues across the urban-rural continuum. In summary, although the 2016 presidential election provides a more visual and poignant illustration, the urban-rural divide - in partisanship, vote choice, and ideology - has been widening for at least a decade. That said, swing states tend to have less of a stark divide between urban and rural districts (McKee 2008).

Even though there has been a gap in the urban-rural divide for quite some time, Figures 2.1 and 2.2 show a *particular* partisan widening in rural areas (as well as in smaller or more distant suburbs and in small cities in outstate areas) since 2008/2009. This gap lessened slightly in the 2018 midterm elections due to less rural and small-town Republican support.

Figure 2.2: *Congressional and Presidential Vote by Rurality over time.*



Note: Taken from https://www.dailyyonder.com/contrary-hear-rural-urban-gap-didnt-grow-2018-election/2019/03/14/ . Original caption from website: "The chart shows the percent of the two-party vote Republicans and Democrats received in congressional (red and blue lines) and presidential elections (red and blue bars) from 2006 to 2018. Each chart represents a different category of county on the spectrum from urban to rural. Democrats gained in every county type in 2018, and the gap between the most urban and most rural voters remained about the same as 2016. (Daily Yonder graphic. Data source: Dave Leip's Atlas of U.S. Presidential Elections)."

Large-Scale Explanations for the Urban-Rural Divide: Geographic Sorting and Homophily

Although it appears that the urban-rural divide has been in place in the United States for quite some time, and that metro areas have consistently supported Democratic presidential and Congressional candidates at stable rates for a couple decades (for the most part), rural areas experienced a notable shift in the right-ward direction since the late 2000s especially. This right-ward shift has occurred not just regarding vote choice, but also in partisan affiliation and ideology.

Why might this be the case? One very prominent explanation has been geographic sorting. The Republican base matches several demographic characteristics, including being white, male, lower in education level, and part of the perceived working class. This has sparked literature and speculation along a number of demographic features and their

corresponding group identification, such as white identity (Jardina 2019) or the fall of the white working class (Gest 2016), as well as the partisan and racial "us versus them" that Trump has helped foster (Abramowitz 2018; Frey 2018; Newman et al. 2018; Sides et al. 2017). These demographics have not only tended to increasingly predict Republican support; they are also more common in rural America – though white identity is only modestly correlated with rural residence.

So, according to this line of thinking, the urban-rural divide results from geographic sorting, with right-wing sympathizers increasingly moving to (or remaining in) rural areas, and left-wing supporters concentrating in urban areas (Bishop 2009; Bishop and Cushing 2008; McKee 2008; Motyl et al. 2014; Tam et al. 2013). Younger and more educated individuals are increasingly finding jobs in cities, and whites are moving out of city centers (Kaufman 2019; Rodden 2019). This leaves the average rural area disproportionately older, whiter, more religious, less educated, more working class, and so on, all of which correlate with Republican support regardless of where one lives. In other words, according to the geographic sorting hypothesis, there is no real difference between a Republican in an urban area and a Republican in a rural area; they have similar positions and goals, they support similar candidates, they behave in similar ways, and they expect similar things from the government. According to this explanation, individuals who live in rural areas that do not fit the typical profile of a Republican would move if given the chance.

That said, there is a fairly common-sense reason why the geographic sorting argument is an insufficient explanation to explain the urban-rural divide. If geographic sorting were the only explanation, then we would expect the urban-rural divide to slowly

widen over time, barring any sudden exodus of people from the countryside. However, there seems to have been a particular jump in the past decade or so in particular. Looking again at Figure 2.1, for instance, there is a sudden widening of Republican versus Democratic party registration for rural counties in the late 2000s. Further, this explanation does not consider factors that may be driving demographic sorting in the first place, nor does it consider that there may be differences between those of the same party along the urban-rural continuum.

The sorting argument has been challenged empirically by different researchers (Abrams and Fiorina 2012; Darmofal and Strickler 2016; Gimpel et al. 2020; Mummolo and Nall 2017). These researchers challenge the geographic sorting argument either because there is little to no evidence for it, or because it is unclear what factors people would be sorting along. A study by Lewis and Baldassare (2010) finds that Republicans prefer rural areas while Democrats prefer urban areas, though this is only a measure of preference and not actual moving behavior. People who do move tend to move to similar communities (rural to rural, suburb to suburb, etc.) and giving positive ratings to urban or rural individuals was found to not impact geographic sorting behavior among self-identified Democrats or Republicans (Mummolo and Nall 2017; Noe and Barber 1993). Some scholars that promote the sorting argument for the urban-rural divide do admit to there being some contextual, or place-based, effects (Kaufman 2019; Rodden 2019), particularly via social influence and the re-shaping of one's interpersonal networks (Gimpel et al. 2020). Martin and Webster (2018) find that there is a contextual effect on vote choice beyond residential sorting, though the study does not explore the nature of this contextual effect.

Furthermore, much of what might drive people to want to move to a different area in the first place is the result of psychological or contextual effects - an incongruence between one's identity and values and the ambient cues and values in the current environment (Motyl 2016; Motyl et al. 2014). For example, someone who lives in a city but also enjoys hunting and a slower pace of life may not feel a belonging with their urban surroundings, and instead feel an affinity with rural areas that eventually drives them to move to a small town. Or, an LGBTQ individual in a rural area may feel at odds with the surrounding culture on account of their sexual identity, and therefore move to a more tolerant urban area (Lick et al. 2012; Smart and Klein 2013). Research in psychology finds that people pick up on environmental cues that predict inhabitants' cues on whether an individual's social group identity would be accepted in the environment (Cheryan et al. 2009; Gosling et al. 2002; Purdie-Vaughns et al. 2008). Experiencing an incongruence between moral values of the community and the individual not only makes people feel uncomfortable; they are also more likely to move to a community with a better fit (Haidt and Graham 2007; Motyl et al. 2011; Schimel et al. 2007).

Therefore, a contextually-driven place-based identity such as rural identity or community-level changes, both of which I discuss in more detail in the next section, may interact with geographic sorting, rather than geographic sorting and place-based factors being competing explanations. Once a person finds a community that is more congruent, their own tendencies may then become exacerbated, for example. Some scholars have found that neighbors and friends in the area influence one another's attitudes, as another example, and social network homogeneity versus heterogeneity of attitudes would likely change the nature of attitude influence (Cho and Gimpel 2012; Gimpel et al. 2008; 2020;

McKee and Teigan 2009). In any case, the geographic sorting argument is a partial but not sufficient explanation for the urban-rural political divide, or for the political tendencies of rural areas.

Large-Scale Explanations for the Urban-Rural Divide: Economic Issues

Some scholars have found and delved into what the above-mentioned contextual effects might be. The first of these relates to large-scale economic changes that have affected rural areas. Many rural areas in the United States have faced ongoing, medium- and long-term economic problems; as a result, these areas have experienced long-term economic decline and a more recent lack of recovery from the Great Recession. Local economies can exert an influence on the community and the individuals within that community in a major sense. Many scholars and popular writers have pointed to the partial shift of the white working class from supporting Democrats to backing Republicans in recent years (Gest 2016; Lamont and Park 2017). In the 2016 presidential elections, high white working-class areas – including some rural areas - tended to vote for Trump, and were also more prone to substance abuse, deaths of despair, and an overall drop in well-being; much of this is attributed to lower intergenerational rates of social and economic mobility as well as relative economic deprivation (Chetty et al. 2014; Monnat and Brown 2016; Rothwell and Diego-Rosell 2016; Wasfy et al. 2017). This is especially true of less educated and working-class whites in the South and the Midwest, compared to other regions (Smith and Hanley 2019). Many working-class whites work in manufacturing – a sector that has been on the decline in the United States - and the local economies of rural areas have been disproportionately more reliant on manufacturing compared those of suburban or urban areas (Rodden 2019; Westcott and Contact 2010).

Two other industries common to rural areas – agriculture and mining – have also taken hits due to long term factors in the national and global economy. Agriculture in particular has shifted from small-scale farming to industrial farming in the past half century, making it more industrialized in nature and subject to similar trends as manufacturing. Further compounding this issue, the local economies of many rural areas, particularly those reliant on agriculture and mining, fluctuate according to commodity prices. Commodity prices do not always rise with an otherwise growing economy, and in many instances are countercyclical to broader national economic growth. For example, many commodity prices dropped in the mid-2010s - including crop prices (Figure 2.3) and metal prices - while the rest of the U.S. economy experienced ongoing growth. These things, along with outmigration of educated workers, have led to poor recovery in rural areas since the start of the Great Recession in terms of county job, wage, and GDP growth (Figures 2.4 and 2.5) (Farrigan 2019). Economically distressed zip codes - which are disproportionately rural - are further locked into a catch-22 because raising the education level of residents helps relieve economic decline, but the cost of getting post-secondary education is high and causes students to become saddled with debt (EIG 2018).

Figure 2.3: *Select U.S. crop prices over time, USDA statistics.*

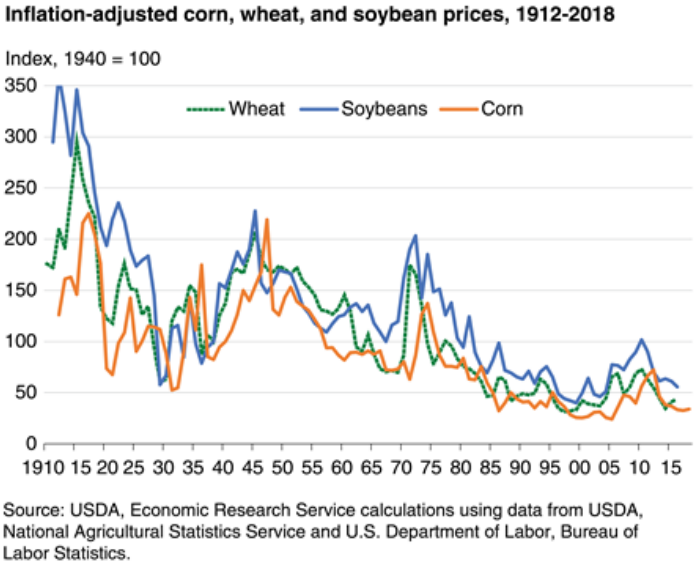


Figure 2.4: *Number of jobs in metro versus non-metro areas, 2007-2017.*

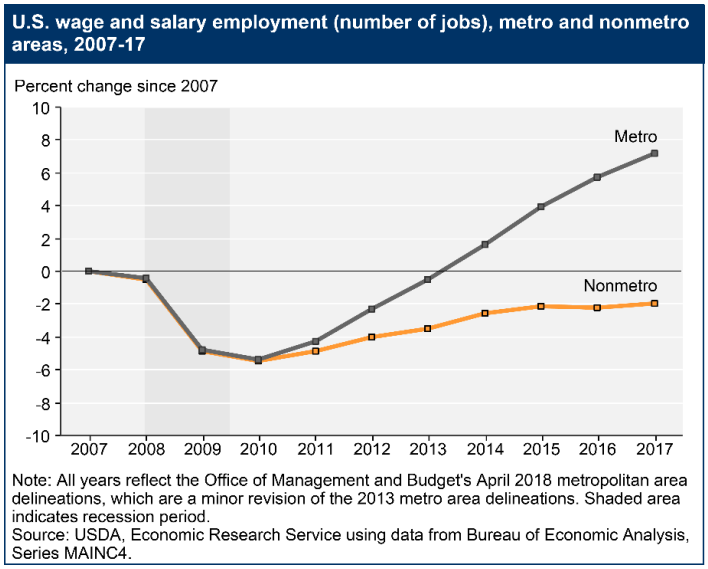


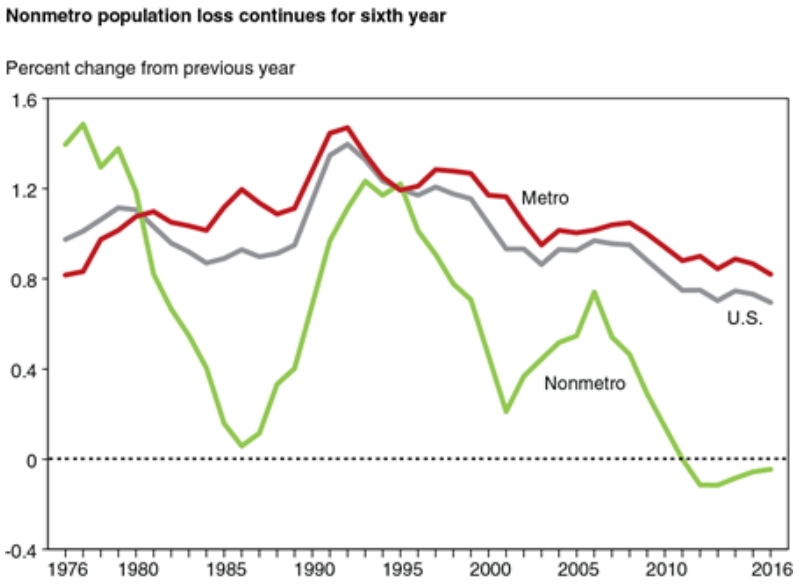
Figure 2.5: *Annual growth rate for large metro, small metro, and non-metro counties, 2001-2017.*

In line with these economic trends, Scala and colleagues find that rural areas with different types of economies tend to vote more or less Republican in recent presidential elections. For example, poorer and/or farming-dependent communities voted more conservative, while amenity- or recreation-based rural economies voted more liberal in 2012 and 2016 (Scala and Johnson 2017; Scala et al. 2015). Similarly, Muro et al. (2019) find that, over the past decade, local economies of Republican-leaning districts are declining in terms of income and G.D.P., while Democratic-leaning districts are improving. This has been echoed in interviews with rural residents. For example, in Wisconsin, one interviewee mentioned how the industrialization of dairy farming depleted the town of its community, creating bitterness and a chasm between rural and

urban areas (Kaufman 2018). It has long been known that recent economic trends determine vote choice, particularly for swing voters (Achen and Bartels 2016; Lenz 2012); though the overall economy had been doing better in the 2010s, this recovery was uneven and rural areas may have been voting according to more local economic conditions than national ones.

As mentioned above briefly, population loss has much to do with this trend. Geographic sorting - the movement of young, educated people to cities - is responsible in part for the urban-rural split, but it also becomes highly problematic for the local economies and social structure of rural areas. Figure 2.6 below shows the net population loss over time according to metro versus non-metro areas.

Figure 2.6: *Net population loss by metro, nonmetro, and overall, 1976-2016.*



A lack of working-age adults damages the economy due to a dearth in higher-paying jobs makes it difficult for certain fixtures of daily life to continue - such as medical care, legal services, adequate education, local governance, etc. Furthermore, less of this population group means less children are born in rural areas, further worsening the population loss. Although pockets of immigration have helped reverse this trend in certain rural areas, overall, there has been a net loss in population.

In a variety of direct and indirect ways, economic and population-based decline, along

with the collapse of local organizations or other groups that form chances for social support, have driven an uptick in social, economic, and public health issues in the rural United States. Such larger forces undoubtably impact people living in affected areas and relate to political outcomes recently. However, this does not fully explain how individuals link what is going on with political outcomes. In the next section, I outline the theoretical background of how rural areas might experience these changes at the individual psychological level by introducing Social Identity Theory (SIT), then applying this theory to rural identity.

Expectations from Social Identity Theory

The field of social psychology has long studied the role of group dynamics and group conflict, especially using Social Identity Theory (SIT). According to SIT, humans have a psychologically based and automatic tendency to form groups. We can form groups under the most minimal of circumstances or differences (Duckitt 2003; Tajfel and Turner 1979; Tajfel 1974). This happens because individual self-esteem increases when

we identify with a group; if the group is positively distinct, then group members' self-image is enhanced (Abrams and Hogg 1988). This personal identification with a group is known as a *social identity*, or *a psychological and internalized sense of group attachment* (Conover 1984; Huddy 2003; Lau 1989; Miller et al. 1981).

We then tend to view others in our group – the in-group – positively, while those not in our group – the out-group – tend to be viewed less favorably. Even minimal arbitrary assignment of individuals to groups creates in-group favoritism (Schildkraut 2014; Tajfel 1981; Wong 2010). People tend to favor members of the in-group and imbue positive characteristics onto them. When a higher-status group begins doing this, status hierarchies between groups form (Roth and Rios 2020). Members of the outgroup are sometimes - but not necessarily – viewed with suspicion and or are seen negatively. Although out-group dislike does not always occur (Brewer 1999), such dislike tends to occur under certain circumstances, such as in-group threat or intergroup competition (Blalock 1967; Grieve and Hogg 1999). Certain people are more likely to see the world in an "us versus them" way, especially when elites make certain groups salient and antagonistic (Kinder and Kam 2009). For instance, those high in Social Dominance Orientation (Sidanius and Pratto 1999), those high in Need for Cognitive Closure (Luttig 2018), or those who are more sensitive to threat (Jardina 2019) are more likely to see the world in terms of group-based dynamics and status hierarchies of these groups.

Despite the common binary "us versus them" conclusions stemming from SIT – which often do occur in practice - there can actually be *multiple* groups placed within a social hierarchy rather than simply two competing high-status and low-status groups. The intermediate-status groups vary in their intergroup dynamics depending on hierarchical

conditions, according to social psychology research. For these middling groups, downward social comparisons maintain positive in-group identification through distinction, while also holding some bias against higher-status groups, particularly in times of heightened in-group threat. In times of lessened group threat, these intermediate groups become more resentful of higher-status groups and less negative toward the lower-status group (Caricati and Monacelli 2010; 2012). Previous research on SIT says that individuals within groups tend to be more hostile toward out-groups when group positions within the social hierarchy are unclear and unstable, and/or when resources are scarce (Hornsey 2008); this appears to especially be the case for intermediate-status groups.

These tendencies are illustrated well in political science and sociological research on racial attitudes among those groups in the middle of the racial group status hierarchy. Intermediate-status racial groups, such as Hispanics, rate higher-status groups positively and lower-status groups negatively (McClain et al. 2006). Hispanics express negative attitudes toward Black Americans, but particularly so if they were not born in the U.S. (Mindiola et al. 2003); much like the social psychology research on intermediate status groups above, those who are more unsure or unstable in their positionality tend to be more hostile to the lower-status group. Similarly, Chinese immigrants sought to distance themselves from Black Americans in certain parts of the American South after being socially lumped together by the higher-status racial group (whites) (Quan 1982); here, the Chinese sought to maintain intermediate status by avoiding marriage to whites and by *definitely* not marrying Blacks, thus creating group distinction with more distinction from the lower status group (Loewen 1971, 79).

In addition, group identity can lead to group consciousness, the latter being seen as a politicized version of the former. McClain et al. (2009) define group identification as, "…an individual's awareness of belonging to a certain group and having a psychological attachment to that group based on a perception of shared beliefs, feelings, interests, and ideas with other group members." (pg. 747). Therefore, group identity moves beyond group membership into a psychological attachment with one's group. Group identification is a distinct concept from group consciousness, in that it occurs when a social group has become politicized according to a set of ideological beliefs about the group's social standing, and according to the belief that collective action can improve the group's status and achieve the group's goals (McClain et al. 2009; Miller et al. 1981; Conover 1988). Miller et al. (1981) stipulate that group consciousness is achieved if there is in-group identification, if there is polarized affect (towards in-group versus out-group), if the in-group is in a lower position than the out-group(s), and if the group's social status is attributed either with individual failings or with a biased system. Group consciousness tends to occur in disadvantaged or minority groups, such as racial minorities in the United States (Brown 1931; Miller et al. 1981; Jardina 2019). Various measures exist to generally capture group consciousness, though linked fate is often one of these, at least for racial group consciousness (Chong and Rogers 2005; Lee 2007; McClain et al. 2009). Despite the importance of group consciousness in explaining certain phenomena, social group identity can still determine political outcomes and attitudes without identification turning into group consciousness (Jardina 2019).

Identities matter to politics because they shape people's attitudes and actions (Schildkraut 2014), though to be politically relevant, they must be both salient to the

individual and linked to the political climate (Posner 2004; Schildkraut 2014). The media in general facilitate the linking of identities to politics, but partisan news media in particular has exacerbated this trend, particularly among the politically involved (Lelkes et al. 2017; Prior 2013; 2007). Since biased partisan media is available around the clock, its consumers are continually aware of partisanship and other politically-relevant social identities (Iyengar and Westwood 2015).

Partisanship has been a key social identity in politics over the last few decades because people are increasingly sorting their other identities, including race, religion, education, and so on, into the larger identity of partisanship. This is what Mason (2018) calls a mega-identity. Multiple identities that play for the same team, i.e., several prominent demographic characteristics of individuals, are well-sorted into one party or the other. For example, being white, male, lower in education level, more religious, and older are all affiliated with increased support for the Republican Party. This, along with a lack of a cross-cutting identity, exacerbates partisan polarization and affective polarization so that conflicts become irreconcilable. This tribalistic tendency of individuals is especially true of strong partisans, particularly for those who are more politically engaged (Bartels 2008; Iyengar and Westwood 2014; Lavine et al. 2012).

Rural and Place-Based Identity

Previous Literature on Rural and Place-Based Cultural Differences and Identity

One category of social identities are place-based. Place-based identity is when a person's sense of self is in part defined by their environment, and the environment takes on deeply symbolic or associational meaning (Dixon and Durrheim 2000; Low and Altman 1992). Cuba and Hummon (1993) define a place identity as an interpretation of the self that uses meaning from the environment to situate or symbolize identity; in other

words, places provide a framework to construct an identity. Identities, including those that are place-based, can also motivate political and social engagement (Fowler and Kam 2007; Huddy and Khatib 2007). Place-based identity differs from place-based attachment; the latter is a positive affect toward a particular place, while the former encompasses a set of beliefs, attitudes, and emotions related to a geographic place (Proshansky et al. 1983). That said, place attachment is one component of place identity.

The most prominent example of place-based identity in American politics research is the American or national identity, though other identities based on smaller geographic units have been studied to a lesser extent. American national identity has been found to have political impact on a variety of issues, especially regarding immigration (Hopkins 2018; Schildkraut 2007; 2014; Theiss-Morse 2009). Wong (2010) finds that Americans feel much closer to their country than to other, smaller geographic units. Furthermore, she finds that older and longtime residents tend to be more attached to their neighborhoods, cities, and states (see also Highton 2000; Sampson 1988; South and Crowder 1997).

But what about the existence of a rural or urban identity? Previous work in sociology, and political science to a lesser extent, finds evidence to suggest that at least a rural identity exists in a meaningful way cross-nationally. Bell (1992), in his ethnographic work in a London exurb, found that residents not only felt that being from the country was a part of their identity; they also perceived sociocultural differences – such as a peaceful, quieter, tighter-knit, and more predictable lifestyle - between themselves (or other rural areas) and the lifestyles of urban residents. Bell points out that many of these differences are constructed ideals, and do not necessarily reflect real

differences. Despite this, the residents' rural identity matters because it provides socio-psychological and material benefits to the residents. Ching and Creed (1997) argue that rural residents see themselves as placed below urban areas in terms of the cultural hierarchy, where modern developed society assumes city-dwellers as the typical subject. Due to this perceived status, rural residents experience otherness in feelings of being looked down upon or invisible, perceiving an unfair access to resources (see also Cramer 2012; 2016; Nelson 2001). Urban areas are often perceived as sophisticated, creative, and bastions of progress, while rural areas are characterized by larger society as backwards, stagnant, and generally inferior (Bryan 1981; Lay 2012; Vanderbeck and Morse Dunkley 2003; Williams 1973).

Rural identity and perceived differences between rural and urban areas also manifest themselves as cultural and lifestyle differences, such as tastes in music, clothing, as well as perceived differences in values (Lyons and Utych 2021; Marks 1991; Parker et al. 2017). Furthermore, population density, size, and diversity are conducive to change, innovation, and unconventional behavior (Fischer 1975; Glenn and Lester 1979). Various studies throughout Western developed countries have found a positive correlation between openness to experience and rural residency (Greaves et al. 2015; Rentfrow et al. 2015). Rurality may therefore be directly linked to conservatism directly via a tendency towards more closed personalities (Johnston et al. 2017; Jost et al. 2003). A relatively recent review of sociological literature concluded that rural areas may also be more conservative due to the influence of religion on values and attitudes, as well as a lack of exposure to new ideas and viewpoints that comes to areas with many people from differing backgrounds (Lichter and Brown 2011). Therefore, one expects rural Americans

have more “traditional” values that are inherent to being in a lower population-density area.

Ching and Creed (1997) further argue that anti-intellectualism is another component of rural identity, not only due to differences in education levels between rural and non-rural areas, but also because intellectuals assume an urban subject and the rural subject is either invisible or needs development and improvement. Rurality is therefore associated with having common sense and life experience, versus book smarts; this preference for common sense in rural areas has been found in more recent work as well (Cramer 2016; Wuthnow 2019). Older but highly influential scholarship on anti-intellectualism found that certain parts of rural America in particular is inclined toward this distrust of experts and intellectuals (Hofstadter 1963).

Work by Cramer (2012; 2016) not only gives further evidence for rural residents perceiving value and lifestyle differences between rural and urban areas; she also provides a theory of rural consciousness to explain how place-based attachment ties to political attitudes. The original purpose of Cramer’s book was to understand why people living in outstate Wisconsin held disdain for public employees. During this time Wisconsin also elected a Tea Party affiliated governor - Scott Walker - making Cramer’s work move beyond public employee animosity into other topics, such as support for Walker, attitudes toward Obama, certain policy positions, and so on. Cramer developed the concept of rural consciousness, which is an identification of being rural along with a feeling that rural residents are treated unfairly by elites and policy makers, both of whom the rural residents associated with cities or urban centers. Rural residents felt disrespected or looked down upon by these groups and were proud of their rural way of life and

values, which include hard work, slower pace of life, and common sense. Similar out-group resentment and anger has been found in other sociological studies of rural areas, with the out-group foils being urban residents, professionals, and the federal government (Hochschild 2016; Wuthnow 2019). In these works, a key component of place-based consciousness is the affective of anger and resentment to non-rural residents.

These feelings of place-based identification were also linked to perceptions of economic unfairness, where rural residents felt they were not receiving their fair share of government funding despite the perception that their area needed help. Similarly, earlier work by Cramer (2012) highlights that rural identity is contingent on working class identity. Finally, Cramer also says rural consciousness comes with a feeling that policymakers and other leaders do not adequately represent the interests of rural areas.

Cramer's notion of rural consciousness meets the stipulation that the group – rural residents – have ideological beliefs about their social standing (i.e., that they are at a disadvantage compared to urban areas). In addition, it appears that the rural residents interviewed by Cramer identified with being a rural resident. However, these works fail to provide evidence that the group wants to engage in collective action to better their position; the interviewees in Cramer's ethnographic study seemed to share a certain set of political attitudes and vote preferences, but they did not appear to be actively mobilizing in a political sense. A desire for collective action to better the group's position is a necessary component of group consciousness (Miller et al. 1981). Therefore, Cramer's work does not parse out group membership or group identification from group consciousness. Other scholars have noted that people who identify with a social group engage in various forms of managing this identity when in-group membership becomes

more negative and/or under threat. Group members who feel they are in a group with low status may try to leave the group ("individual mobility"), change the ways in which their group might be better than others ("social creativity"), and if these do not work, then they engage in collective action (Ellemers 1993; Tajfel and Turner 1979). Since it appears that collective action has not necessarily occurred for potential rural identifiers, it is likely that they are using other coping mechanisms, such as social creativity, to do so. Such a strategy might resemble something like, "others may look down on us, but we work hard and care about each other." Indeed, this better resembles interviewees' attitudes in Cramer, thus suggesting that this is not rural consciousness, but rather rural identifiers engaging in social creativity to maintain group status and positive group-based psychological benefits. It is for all these reasons that I focus on rural identity here rather than rural consciousness.

Another unclear aspect of Cramer and similar scholars is how much rural identity or affiliation relates to other forms of social identification. Beyond class, the word "urban" has been linked with liberalism and racial minorities for whites especially (Gilens et al. 1999); residents in rural Wisconsin could have been using metro centers as code words for these other concepts. Or, rural identity in Cramer's study could have been another form of place-based identification, such as nationalism, or affiliation with one's state, local community, city, or neighborhood. Munis (2020) and Farhart and Sheagley (*n.d.*) argue that it is not rural consciousness *per se* driving these relationships. Rather, it is place consciousness based on a general proclivity for attachment to various geographic locales that predicts political outcomes. Munis finds that place-based attachment at various levels is higher in rural areas compared to non-rural areas, for example. However,

other recent data has found that place attachment and belonging does not vary much between rural and urban settings. According to a 2018 Pew Study, 60% of both urban and suburban residents said that they feel very or somewhat attached to their community, while 57% of rural residents said the same (Parker et al. 2018). This is true even though rural residents are older and are more likely to have lived in their community longer – two traits that predict place-based or community attachment, as described above.

The few other political science studies on rural identity and urban-rural affect that I am aware of, beyond Cramer, are Lyons and Utych (2021) and Jacobs and Munis (2018). Lyons and Utych (2021) find evidence that rural and non-rural respondents are affectively polarized against one another using experimental evidence, though they do not delve into measurements of rural identity *per se.* Finally, Jacobs and Munis (2018) find that pairing rural imagery to fictional candidates in an experimental setting makes rural residents more likely to support that candidate, thus suggesting that there is indeed some sort of symbolic attachment to rural areas that can be tapped for voting appeals. These studies, while suggesting that rural identity is in place nationally, do not fully explore the contours and meaning behind rural identification.

What is Populism and How Does it Fit with Rural Identity?

What Is Populism?

Thus far, I have discussed threat from broader social and economic forces on parts of rural America, as well as a symbolic or cultural difference via rural identity; all of these factors place rural America – particularly white rural America – as an unstable or threatened intermediate-status group within the social hierarchy. In the next section, I outline what populism is and why right-wing populism applies particularly well to rural

areas and to extant knowledge on rural identity. This also implies that populism can be thought of in terms of intergroup dynamics.

Many researchers have debated over the best definition of "populism." Populism is a term often used by journalists, scholars, and others as a label for a range of phenomena with little attention given to its definition (Bale et al. 2011; Barr 2009; Roberts 2006). One major area of disagreement in understanding populism conceptually is what it is: is populism an ideology, a movement, a rhetorical framework or a way of persuasion, a type of leader, a type of party, a manner of mobilization, some of these things, none of these things, or something else? Given the wide variety of ways in which populism is applied, some scholars have argued that the term has little explanatory power (Hofstadter 1963). However, in the past couple decades of research, there have been some prominent advances in understanding the phenomenon we know as populism.

Cas Mudde, whose understanding of populism has largely been rooted in right-wing populism in Europe, takes the view that populism is an ideology. More specifically, he argues that it is a "thin ideology" (Mudde 2004; Mudde and Kaltwasser 2012; 2017). A thin ideology is unlike a typical ideology in that it does not provide a comprehensive framework for forming answers to political questions; rather, thin ideologies shape a small part of the political agenda but are combined with other prevailing ideologies dependent on the particular context. For instance, populism can be adapted to either right-wing or left-wing ideologies. Populism-as-ideology for Mudde, Kaltwasser, and others is an ideology divided into two homogenous and antagonistic groups – "the pure people and the corrupt elite" – with the former being the rightful will over politics (Mudde 2004, 543). Right-wing populism adds a third element, which is scapegoating a lower-status

group that is perceived to be favored ahead of "the people" by the corrupt elites. In addition, more recent work in this vein has argued that an anti-establishment political identity must first form for populist ideology to take root (Meléndez and Kaltwasser 2019). As noted above, rural identity constitutes a political identity that has anti-establishment and anti-elitism as a key motivator.

Other scholars see populism as a mode of speaking or a way for political actors to persuade the public. In other words, populism is a discursive style. Populism is therefore a language to convince ordinary people as being morally upright while elites are cast as self-serving, undeserving, and manipulative of "ordinary" people; it is a way of speaking that fosters pitting "the people" against the elites (Kazin 1995, 1-3). This sentiment can also be seen in Hofstadter, as he implies populist politics as being tied to rhetoric or a certain mode of expression (Hofstadter 1964, 4-6). In contrast to populism-as-ideology, populism-as-rhetoric implies that political actors do not hold a set of core populist beliefs. Rather, populism is used selectively and strategically to persuade, and the level and degree of populism used by a political actor likely changes over time and according to circumstances. It is adaptive. Populism is therefore measured as a potentially unstable continuous scale (Gidreon and Bonikowski 2013).

In their analysis of populist candidates in the 2016 presidential election, Oliver and Rahn (2016) adopt a similar rhetoric-based definition of populism to show that candidate Donald Trump was, indeed, a populist. They define populism as a rhetoric that "pits a virtuous 'people' against nefarious, parasitic elites who seek to undermine the rightful sovereignty of the common folk." (Oliver and Rahn 2016, 190). Oliver and Rahn (2016) operationalize populist attitudes as being comprised of anti-elitism, mistrust of

experts – anti-intellectualism- and having affinity with the nation; notably, this definition and operationalization also implies a clear intergroup dynamic. In a related fashion, LaClau (1977; 2005) and Aslandis (2016) both saw populism as a mode of discourse.

Weyland (2001) similarly defines populism as a political strategy of a personalistic leader who aims to mobilize an unorganized mass often using emotional and grievance-based appeals. Bonikowski and Gidron (2016) argue for the idea of populism as a discursive strategy by showing that presidential candidates who are the most outsiders tend to adopt populist rhetoric, providing evidence that populism is more a political strategy than a set ideology. Judis (2016) takes a slightly different approach to these two prominent notions of populism-as-ideology and populism-as-rhetoric or discourse. He specifically addresses Kazin's (1995) definition. For Judis, there is not "set of features that exclusively defines movements, parties, and people that are called populist…" (Judis 2016, 2). Rather, the people and parties we call populist merely have family resemblances but not particular defining traits. Instead, for Judis, populism is a political logic where pitting the people against the elite foster certain demands against those in power.

However, Judis does agree with Kazin (and others) that populism is related to an idea of the ordinary people as noble against the elite opponents who are construed as self-serving; populism seeks to mobilize the people against the elites. This is the defining commonality between the various notions of populism. At its core, populism is about the exaltation of the people, the antagonization of the elite, and pitting the former against the latter. In these cases, who constitutes the "people" and the "elite" are highly subjective and context-dependent. For example, the elites could be intellectuals, the political class,

the upper classes, the rich, and/or a certain ethnic, racial, or religious group. Similarly, the people could be simply a segment of the voting population or a certain demographic group rather than the entirety of a population or a voting public, but whatever group is denoted as the people are in any case construed as the "true" or "rightful" people. There is therefore also a moral element in populism common across different definitions. The "people" are virtuous, sovereign, and (supposedly) have a general will, while the elite are immoral, corrupt, and degenerate.

Finally, there is an elite-driven implication to populism, where either a charismatic leader or a group of elites employ populism or activate populism in the public. This implies both a supply side and a demand side to populism. There is a certain subset of the population that tends to be predisposed to following populism, especially under certain circumstances of threat, decline, or disruption (Golder 2016; Judis 2016). In such circumstances, people feel dispossessed of their values and way of life in the face of both economic and social change. When this occurs, there are "winners" and "losers" of such changes; oftentimes, the perceived winners are resented by the losers. At these moments, political actors step in to exploit the populist mood.

It is unclear how much this sense of decline is related to economic feelings of loss. Bad economic times create a more competitive environment for resources, making native residents hostile to immigrants and perceived outsiders (Rydren 2007), though others find that economic grievances and prospects are either unrelated to, or irrelevant, in comparison to cultural or immigration-related grievances (Ivarsflaten 2008; Mols and Jetten 2016). Heightened immigration in Europe and the U.S. over the past couple decades also contributed to this climate, where concerns over not only perceived

economic competition but also fear of racial displacement by Latinos (or Muslims in Europe) had been building for years among certain sectors of the public (Craig and Richeson 2014). Such anxieties among whites in particular have led to fear of cultural displacement and a threat to whites as a racial group, though heightened immigration and favors given to immigrants also potentially threaten those who 1) fear falling down the societal hierarchy, and 2) fear cultural and social changes that further alienate values and worldview that are perceived as already alienated by elites. Again, such out-group resentment of lower status groups is particularly characteristic of right-wing populism.

Likely, the economic feelings of loss are at least partially symbolic, or they are related to a relative status loss that is intertwined with political and social decline in what Gest et al. (2018) call a nostalgic deprivation. Nostalgic depravation is a sense that things used to be better than they are now (see also Ivarsflaten 2008). For example, heightened inequality and the collapse of working-class jobs has significantly affected men's abilities to marry and provide for a family, which contributes to their feelings of status loss alongside the applaudable advances of women's rights (Cahn and Carbone 2011). Men, in general, have been told they *should* have heightened control and status, yet their status is diminished in society on several levels (Faludi 1999). Hence, men tend to support populism more than women. This gender-based loss of status is one of many instances of certain groups feeling threatened or feeling as if they are "going down" in society. Overall, such groups in society experiencing decline in various forms are angry with and resent elites because these groups feel forgotten or ignored by political and social leaders (Gest 2016; Inglehart and Norris 2017). Rurality – particularly rural identifiers – would be one such group, given the above discussion.

Putting it All Together

To summarize the above discussions, research has found that the urban-rural political divide has been increasing due to social sorting, as well as threat from economic and social decline. This concern is not only material in nature; it leads to a clear delineation of a group – rural areas feeling left out or left behind compared to others in society – as well as a threat to group status. Rural areas see urban areas and coasts as populated by arrogant elites, experts, and intellectuals who look down on them in favor of low-status groups in society, such as immigrants. In other words, rural residents' position as an intermedia-status group in society under threat leads to out-group derogation above - to those deemed responsible (urban and coastal 'elites') – as well as below – those who receive unearned favors by such elites (such as immigrants). It is not urban areas *per se* that are the issue – rural residents understand that there may be metro or urban residents that are in a similar plight as them (such as a white rural resident not being resentful of a white member of the working class in an urban area). Rather, the rural out-groups are more complex.

Further, although the threat experienced by rural identity has potentially been spurred on by economic and social changes, the threat is mostly experienced as symbolic and status-based, as predicted by SIT. All these characteristics lend themselves very strongly to right-wing populism, as it matches the grievances and group status of rural identifiers because of rural areas' precarious middling position because populism aligns such intermediate-level groups as morally good and the high and low status groups as bad, thus fulfilling the need for in-group positivity.

If this is the case, rural social identification should positively predict attitudes toward populist politicians (Chapters 3 and 4), while negatively predicting attitudes

toward immigrants (Chapters 3 and 5) and experts/intellectuals (Chapters 3 and 6), as such stances fulfill the group-based psychological needs of a threatened intermediate-status group. These out-group attitudes should be affective and group-based. Further, strong rural identifiers should theoretically be positively attached to the in-group (rural areas), but not necessarily as resentful or negative towards metro areas generally (Chapter 3); instead, previous literature confounds metro or urban areas with certain out-groups *associated* with those areas. Rural identifiers' concerns should be only weakly or completely unrelated to economic issues, or even class concerns, but rather reflect a sense of shared decline (Chapter 4) and symbolic threat (Chapter 5). Notably, these tendencies hold for rural identifiers regardless of race.

Methodological Approach

To test the above expectations, I employ analytical strategies using various cross-sectional and panel surveys, experimental data, and a county-level data set of local economic, social, political, and demographic variables. Below, I provide a basic overview of these data sources and how they are used in this study, though a shortened version of this overview can be found in Table 2.1. More information on these data sets, including sample characteristics, can also be found in the relevant chapters used. Throughout this dissertation I will refer to these studies either by their data set name (such as "Study 2" or "CSPP") or by their date and source (such as "May 2019 Lucid" or "ANES 2019").

Table 2.1: *Data sources for this study.*

Data Set Name	Date(s)	Source(s)	Type	Chapters Used	Purpose	Sample Size
Study 1	Late Oct. 2018	Lucid	Cross-sectional survey (original)	Ch. 3	Descriptive and Regression analysis	*N = 940*

Study 2	May 2019	Lucid	Cross-sectional survey (original)	Ch. 3; Ch. 4	Descriptive and Regression analysis	*N = 531*
Study 3	August 2019	Lucid	Cross-sectional survey (original)	Ch. 3	Descriptive and Regression analysis	*N = 825*
Study 4	April 2020	Lucid	Cross-sectional survey (original)	Ch. 3	Descriptive and Regression analysis	*N = 492*
Study 5	August 2020	Lucid	Cross-sectional survey (original)	Ch. 6	Survey experiment	*N = 360*
Study 6	December 2020	Lucid	Cross-sectional survey (original)	Ch. 6	Survey experiment (replication)	*N = 495*
Study 7 "ANES"	December 2019	ANES pilot - YouGov	Used as cross-sectional survey	Ch. 4; Ch. 6	Descriptive and Regression analysis	*N = 3000*
Study 8 "CCES"	2018	CCES - YouGov	Used as cross-sectional survey	Ch. 4	Descriptive and Regression analysis	*N = 60,000*
Study 9 "CSPP"	Wave 1: Oct. 6-4 2020; Wave 2: Oct. 23-Nov. 3 2020; Wave 3: Nov. 9-16	CSPP – YouGov	Panel survey	Ch. 5	Survey experiment and cross-lagged models	Wave 1: *N = 2,615;* Wave 2: *N = 1,865;* Wave 3: *N = 1,471*
Study 10 "County-level dataset"	Misc. (see description in Ch. 4)	USDA; MIT Election Data and Science Lab; US Census Bureau; RWJ Foundation's County Health Rankings; Penn State Social Capital Scores	Panel data	Ch. 4	Descriptive and Regression analysis	*N = 2,820 (counties)*

The most relied-upon data sets are original surveys and survey experiments (Studies 1- 6) using Lucid's Fulcrum Academic service (referred to here as "Lucid"). Though not nationally representative, Lucid targets representativeness on several known demographic benchmarks—including race, age, sex, household income, and Census region. Furthermore, Coppock and McClellan (2019) find that demographic and experimental findings on Lucid are similar to U.S. national benchmarks and better representative than traditional convenience samples on several demographic, political, and psychological factors. Lucid has been used for data in previous studies relating to rural political behavior and other non-rural studies on political behavior (Callaghan et al. 2019; Lunz Trujillo et al. 2020; Munis 2020). I also account for potential deviations from representativeness by weighting these data sets to population benchmarks on race, age, sex, income, and educational attainment. These are post-stratification weights created with the *svywgt* command in Stata.

These original Lucid survey data sets form the basis for understanding what rural social identity is and its correlates. I mainly rely on these sets because they use the measure of rural social identity strength adapted from the Huddy et al. (2015) measure of partisan social identity strength. Other data sets either do not have measures of rural social identity – though many have questions of subjective rural residency – or the measures are based on a less comprehensive set of questions (such as the ANES data set, which only measures identity importance). Some of the data from Lucid also contain an original survey experiment meant to activate rural identity for rural residents to test whether this predicts a change in anti-intellectualism.

The 2019 ANES pilot (Study 7) was conducted using non-probability sampling. It was fielded on American adults online through YouGov – an online opt-in panel - in December 2019 by taking a random sample of individuals from a nationally representative pool (according to 2016 Census data) (N = 3,000). Since this was an online opt-in panel, to further approximate national representativeness, YouGov used propensity score matching to get a sample as close to Census targets as possible and ended up with a sample size of 3,000 respondents. YouGov also developed weights according to respondent race, age, gender, education level, and 2016 presidential vote choice (ANES 2019). This method produces a sample that looks similar to a probability sample on the matched characteristics, but may still differ in unknown ways on unmatched characteristics. I rely on the ANES data set as an additional validation of findings from the Lucid surveys; as mentioned above, I only use the ANES data for validation because it only measures rural identity using one question, rather than the multi-item scale used in the Lucid surveys.

The 2018 CCES ("Cooperative Congressional Election Studies") Common Content data set contains a very large number of survey data responses of American adult voters (N = 60,000) (Schaffner et al. 2019). Such a large sample size of voters adds additional validity for the scope of this study when looking at rural residents, as getting enough responses from rural respondents to run certain statistical analyses can be a challenge if the sample size is smaller. However, the use of the CCES here is unfortunately limited due to it having no questions capturing rural social identification. The CCES is administered through YouGov and uses non-probability sampling, which produces samples similar to probability samples on matched demographic targets but

may or may not be dissimilar on non-matched demographics. For this reason, I also use the survey weight provided by the CCES data.

Study 9 is a three-wave multi-investigator panel survey designed, funded, and implemented by the Center for the Study of Political Psychology (CSPP) at the University of Minnesota. This survey was conducted using YouGov. Between October 6 and 14, 2020, YouGov interviewed 2815 adult U.S. citizens who were matched down to a sample of 2615 respondents in the final data set. The respondent demographic makeup on age, gender, race, and education was constructed using stratified sampling from the 2018 American Community Survey (ACS). YouGov successfully recontacted 1865 respondents from wave one who completed wave two of the survey. Wave two was conducted between October 23 and November 2, 2020. For wave three, YouGov recontacted respondents from waves one and two; 1471 individuals completed the survey. Wave three was conducted between November 9 and 16, 2020. For each wave, the cases were weighted to the ACS sampling frame using propensity scores and post-stratification on 2016 presidential vote choice (wave three only), gender, age, race, and education level. I included an original experiment on this survey, as well as questions asked in Waves 1 and 3, particularly looking at how rural residency and rural identity relate to immigration; this is the primary data set for Chapter 5. That said, rural identity is also measured using only two questions that capture identity strength and importance, which is more comprehensive than ANES but still not as full of a scale as the Lucid studies.

Finally, Study 10 is a data set of several merged data sources at the county level. The data set includes 2,820 counties out of 3,007 total counties in the United States (93.7% of all counties). I use several sources of data, including RUCC codes (from the

United States Department of Agriculture, or USDA) to measure the urban-rural continuum and county vote shares for presidential candidates from the MIT Election Data and Science Lab (MIT Election Data and Science Lab 2018). In addition, the data set also includes information from the USDA, the US Census Bureau, the Robert Wood Johnson Foundation's County Health Rankings data, and the Penn State Social Capital Scores. More information on the specific measures and dates can be found in Chapter 4. I use this data set to examine local economic and social decline on vote choice for rural areas, and also merge it with Lucid data to conduct multi-level models.

Looking Forward

In this chapter, I discuss the relevant literature and studies surrounding the urban-rural divide, as well as describe how social identity theory and populism can relate to rural identity. In doing so, I set up the key elements of my main argument: for rural Americans, perceived in-group threat from economic, social, and cultural sources has led to a need to delineate the group and preserve its status. Since rural identifiers occupy an intermediate status group in society, they have a natural affiliation with right-wing populism, which resents both a morally corrupt elite and lower-status groups (such as immigrants) perceived to be favored by the elite. Therefore, the out-groups are more complex for rural identifiers than simply "urban"; further, rural identity is a distinct identity from place identity because rurality has a specific status and set of norms and values associated with it. Further, rural identity is not as contingent on individual levels of class but on symbolic in-group concerns; any economic factors for rural identifiers would therefore be more at the local or group-level and not at the individual level.

In the next chapter, Chapter 3, I use Studies 1-4 to begin this analysis and lay the groundwork for Chapters 4-6. I introduce the rural social identity strength measure

adapted from Huddy et al. (2015)'s partisan social identity strength questions. Further, I examine expected affective, political, and demographic correlates of rural social identity to argue that rural social identity strength is more focused on positive in-group affect rather than negative metropolitan affect (the assumed out-group). Then, I show that politically rural identity is not linked on the traditional Republican-Democratic spectrum; rather, it is more affiliated with specific group-based populist sentiment, such as anti-immigration and anti-intellectualism, which are explored further in Chapters 5 and 6, respectively. Finally, I also set the stage for Chapter 4 by asserting that rural identity is not white working class affiliated; this is because identity is mostly symbolic and group-based, so immediate economic concerns are less of a driver than group-based economic, social, and especially symbolic concerns.

CHAPTER 3: Correlates and Characteristics of Rural Identity

"Puttin' on a cowboy hat and a pair of boots doesn't make you country; Like puttin' on a ball gown and glass heels won't make me Cinderella."
— Kellie Elmore*, "Magic in the Backyard"*

This chapter sets up several elements of the overall argument. First, I methodologically introduce the concept and measurement of rural social identity: how I measure rural social identification, how much people socially identify as rural, what its correlates are, and how do these elements differ from objective and subjective location as well as a metro social identity. In addition, I establish my measure of rural social identity (based on partisan identity strength by Huddy et al. 2015) as a psychological and affective measure, thus validating that rural identity is indeed a social identity associated with positive feelings toward the in-group. I also feel it is necessary to do so because existing measures of rural identity either rely on rural or place-based resentment, which may capture sentiments and ideas outside of rural identification, or they do not sufficiently address identity strength, which is key in understanding the effects of social identities on social and political outcomes (Huddy et al. 2015). That said, research by Lyons and Utych (2021) do find that there is a positive in-group and negative out-group (urban areas) tendency for rural residents using experimental evidence to measure implicit bias, though this is not rural identity specifically. Finally, I examine how much rural social identity is based on positive in-group affect versus negative out-group (i.e., metro) affect. Theoretically, we would expect the latter to be stronger, given previous scholarship's emphasis on rural resentment. However, I find this not to be the case; in-group affect is much stronger, in contrast to previous expectations from those such as Cramer (2016) and Lyons and Utych (2021).

More broadly, accomplishing these things sets up the next three chapters of the dissertation by verifying that rural social identity exists and can be measured quantitatively, that it predicts certain political outcomes, that it falls under the definition of being a social identity, and that we understand how much rural social identity is based on affect of the in-group versus the out-group. This exploratory chapter provides a taste of what is to come; in it, we see that education level, partisanship, income, race, and affect do not correspond to prior expectations, while other elements, such as anti-intellectualism and opposition to pro-immigration policies (but not economic or social operational ideology), correspond to rural social identity.

How Do We Measure Rural Residency and Rural Identity?

Before understanding what rural identity is, it is important to understand what I mean by "rural." There are various ways to define and measure "rural", and decades of academic research by sociologists, demographers, geographers, and other scholars have debated the best way to do so (Hart et al. 2005; Miller & Luloff 1981). Researchers often use definitions and quantitative scales created by government agencies based on objective criteria, such as population density, population size, and distance from metropolitan centers. However, another way to look at what constitutes "rural" is a subjective definition; these terms are whatever people believe they are, based on a set of individual-level criteria. "Rural" often subjectively means isolation, low population density, or part of a small town, all of which are similar to the underpinnings of the quantitative measures listed above. Agriculture and large tracts of wilderness are also common associations with rural areas, as are certain stereotypes or sociocultural traits (Hart et al. 2005). For example, a rural culture could theoretically exist in an urban area.

Given that the focus of my argument is based on a subjective psychological self-identification, I primarily use subjective definitions of rural residency in the context of this study. Values and worldview can be imparted onto individuals living in rural areas (or to individuals living in certain places more generally), and on individuals that were socialized in rural areas during their childhood (Wong 2010). However, subjective self-identification and objective measures of rurality often differ a fair amount. For this reason, I often also use Census designations of the urban-rural continuum ("RUCA" codes). For a much more in-depth discussion of how I define and measure these terms in this study, please refer to the Chapter 2 (theory chapter) appendix.

To study rural social identity, I draw from a variety of sources. First, I use four original survey data sets. The data were collected by Lucid, an online opt-in panel that hits nationally representative demographic targets. These surveys were fielded at four separate points between late 2018 and early 2020; sample size, survey field dates, and respondent demographic makeup can be found in Table 3.1 below. Generally speaking, the demographic makeup of these surveys is very close to national demographic targets, except for Survey 1; this survey was part of a multi-investigator study and included a Black respondent oversample. For Surveys 2 through 4, I requested that the demographic makeup of the respondent sample be as close to nationally representative as possible on the demographics listed in the table.

Table 3.1: *Demographic characteristics of Lucid samples, unweighted.*

Variable	Study 1: Late October 2018	Study 2: May 2019	Study 3: August 2019	Study 4: April 2020
Female	53%	52%	51%	50%
College Degree	36%	40%	31%	45%
Black	24%	11%	12%	11%

White (Non-Hispanic)	64%	73%	69%	70%
Hispanic	13%	12%	16%	10%
Democrat	51%	49%	49%	44%
Republican	38%	40%	39%	40%
Independent	11%	11%	12%	16%
Mean Age	45	46	47	46
Mean Household Income Range	$45,000 to $49,999	$40,000 to $44,999	$50,000 to $54,999	$50,000 to $54,999
Rural (self-id)	44%	42%	43%	23%+
Non-Metro (RUCA 4-9)	22%	16%	16%	
N	940	531	825	492

+ Study 4 asks people whether they live in a rural area, a small town, a suburb, a small city, or a large city. "Rural" here includes respondents who chose "rural area" or "small town". A replication of this table with weighted data can be found in the chapter appendix.

Current measures of rural identity, or related concepts such as rural consciousness and rural resentment, tend to either use one of two types of measures. The first consists of additive scales that tie rural identity with perceived feelings of resentment at the out-group alongside assumed effects or correlations of rural identity, such as feelings of political and economic underrepresentation or rural disrespect (such as Munis 2019; Lunz Trujillo and Crowley 2020). These scales are helpful for measuring a particular bundle of concepts that theoretically go together according to Cramer (2016), however, they are potentially problematic because it is unclear which element of the scale would drive a relationship with another variable. Further, these measures potentially confound social identification with other factors.

The second measure uses questions that ask whether one identifies as rural (or as from a different place), such as those found in the American National Election Studies (ANES) or in Lyons and Utych (2021). However, this is problematic because it measures the 'boundary' of group membership only. Only capturing the boundary of group membership or identity – i.e., whether or not that person identifies with the group – fails to capture the variation in group member identification with that group and their

subsequent attitudes and behaviors. Therefore, measuring social identities according to their strength provides a better indication of how prototypical of the group any given individual is, and thus gives us a better idea of what that particular social identity means (Huddy 2001; 2003). For example, Germans who have stronger regional identities feel more positively about their region than their nation, as opposed to Germans with moderate or weak regional identities (Simon et al. 1995). Simply measuring whether someone identifies with the region or not would not yield the same information about regional identity. People who identify more strongly with the group exhibit greater in-group pride and bias, and discriminate against out-groups more (Huddy 2001). Thus, identity strength is better for detecting the tendencies of that group.

For these reasons, I believe that to fully understand rural identity, we must measure rural identity strength. To measure the concept of rural identity, I adapt the partisan identity strength scale by Huddy and colleagues (Huddy 2013; Huddy et al. 2015). Like in the discussion of the studies in the previous paragraph, these studies by Huddy and colleagues argue that the political effects of social identities are most pronounced among stronger identifiers, so measuring the strength of the identity (and not just the identity itself) is crucial. Table 3.2 displays the five-item battery I use to measure rural identity.

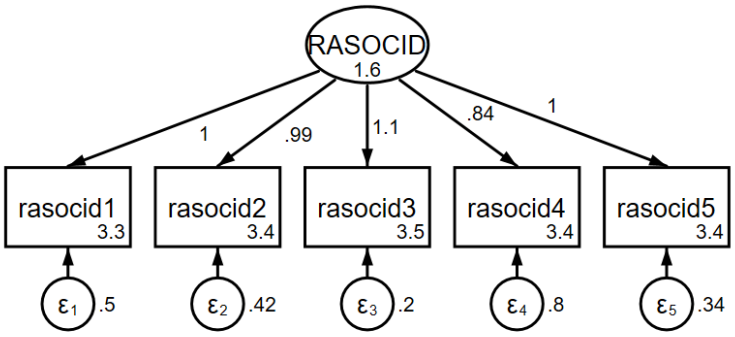
Table 3.2: *Question wordings for rural identity and metro identity survey measures.*

Item Number	**Question Wording**	**Response Options**
1	How much is being from a small town or rural area part of your identity?	5-point scale, *"None at all" to "A great deal"*
2	How important is being a small town or rural resident to you?	5-point scale, *"Extremely important" to "Not at all important"*
3	How well does the term "small town or rural resident" describe you?	5-point scale, *"Extremely well" to "Not well at all"*

4	When talking about small town or rural residents, how often do you use "we" instead of "they"?	5-point scale, *"Always" to "Never"*
5	To what extent do you think of yourself as being a small town or rural resident?	5-point scale, *"A great deal" to "Not at all"*

The rural identity scale across the three survey data sets has a very high Cronbach's alpha score between 0.89 and 0.95. Correlation coefficients between each item can be found in the chapter appendix. Furthermore, I ran a Confirmatory Factor Analysis for rural identity using Study 2 data, which generated the results found in Figure 3.1. Based on this information, the rural identity scale appears to be internally coherent.

Figure 3.1: *CFA for rural identity scale using Survey 2 data.*

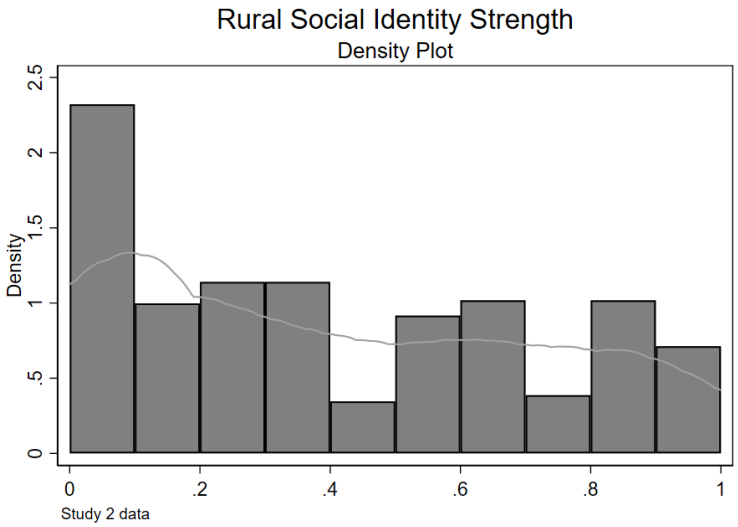


Note: All coefficients significant at $p > 0.001$. [2]

Figure 3.2 below provides the distribution and mean of rural social identity strength for Study 2. I show Study 2's results because it measures rural social identity strength for both self-identified rural and non-rural residents (unlike Studies 1 and 3, though similar distributions for these data sets can be found in the appendix). The resulting distribution is roughly normal, though skewed slightly towards higher values.

[2] Identical CFA for the rural identity scale on Studies 1 and 3 show similar results.

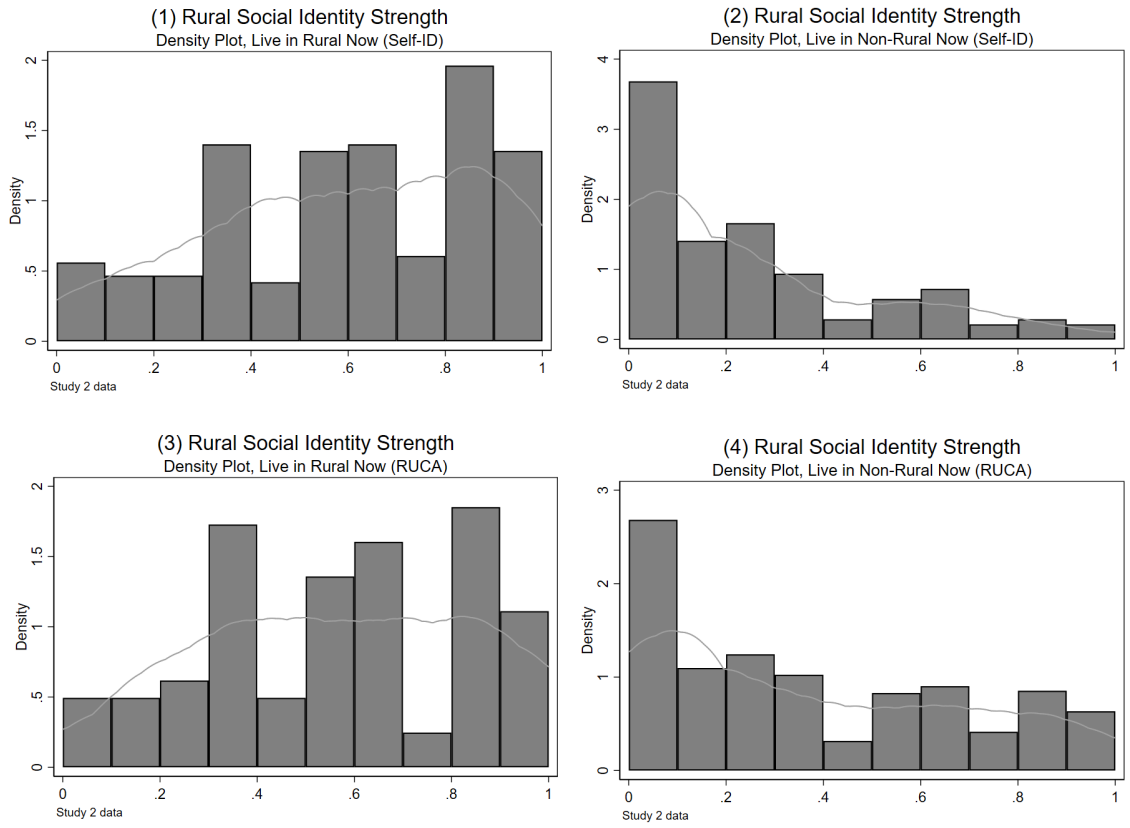
Figure 3.2: *Rural social identity strength distribution for Study 2 data.*



Note: N= 491, mean = 0.40, standard deviation = 0.33

Figure 3.3 below shows the same distribution of rural identity strength, but divided into rural versus non-rural residents (using both self-identification and RUCA codes). As expected, the rural identity strength measure is higher, on average, for rural residents using both methods of measuring rurality. Furthermore, the distribution and means for rural versus non-rural respondents is similar across the two measures of rurality, despite sizeable differences in subsample size. That said, there are some non-rural residents who are still fairly high on the rural identity strength spectrum. I do a similar analysis for Study 3 data; this can be found in the appendix.

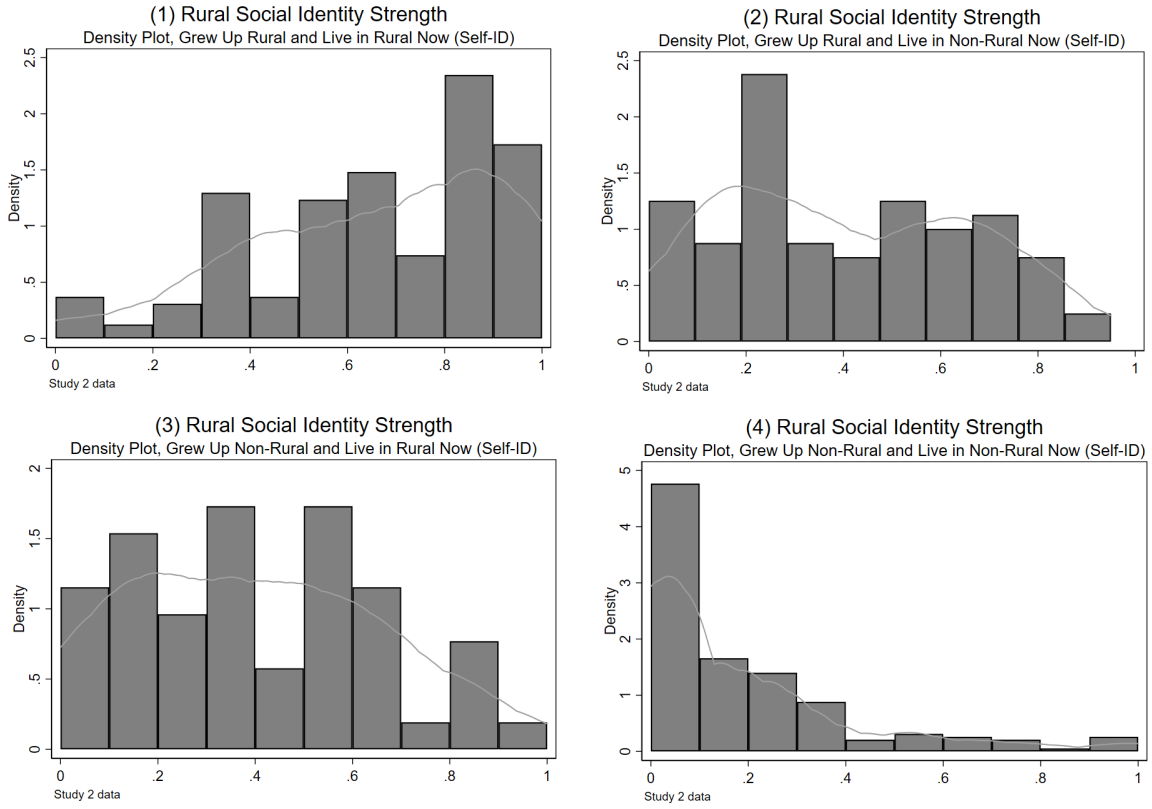
Figure 3.3: *Rural social identity strength distributions by rural residency (self-identified and RUCA) for Study 2 data.*



Note: 1): N= 214, mean = 0.60, standard deviation = 0.29; 2) N= 277, mean=0.24, standard deviation=0.26; 3) N=81; mean=0.57, standard deviation =0.29; 4) N=410, mean =0.36, standard deviation=0.32.

However, this could be due to former rural residents maintaining stronger levels of rural identity, even after they move to non-rural areas. Therefore, in Figure 3.4 I also show distributions of rural identity strength for those who 1) grew up in a rural area and live in a rural area now, 2) grew up in a rural area and do not live in a rural area now, and 3) grew up in a non-rural area and live in a rural area now. Individuals in groups 2 and 3 have the same mean score, which is lower than the average score for rural identifiers who grew up in rural areas and still live in rural areas (1). A similar analysis was done with Study 3 data, but without group 4; see appendix for details.

Figure 3.4: *Rural social identity strength distributions by currently living in a rural area and/or grew up in a rural area, and by non-rural respondents, for Study 2 data.*



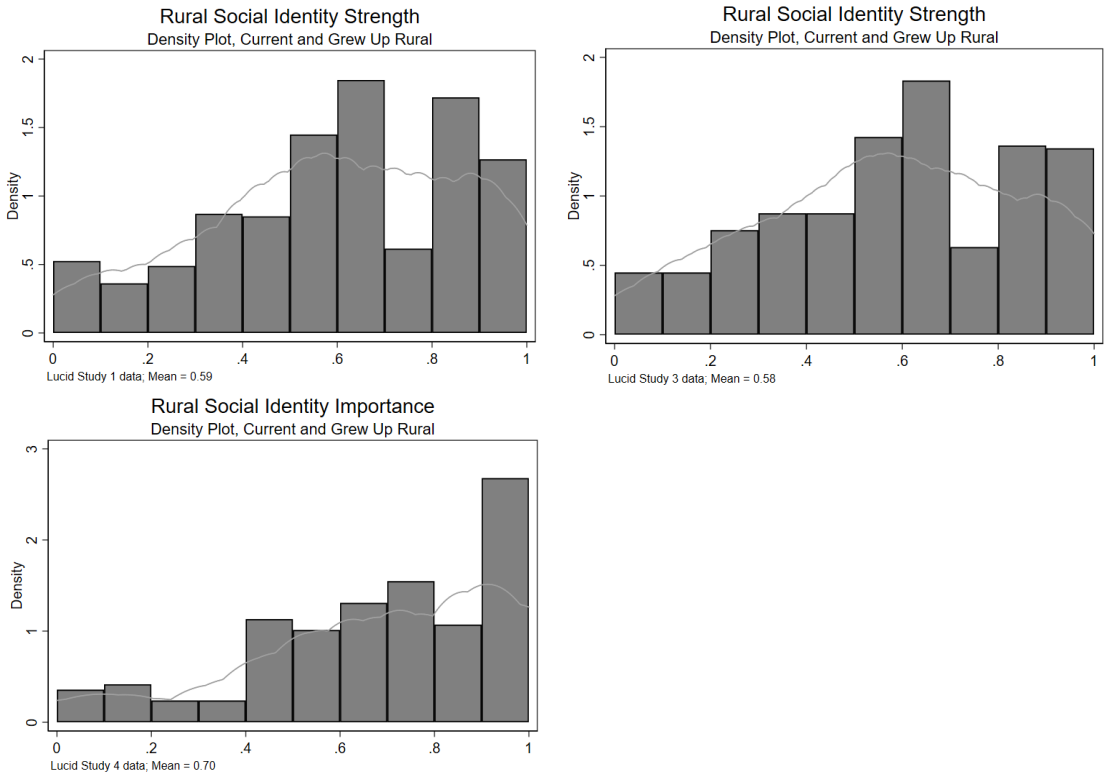
Note: 1): N= 162, mean = 0.66, standard deviation = 0.27; 2) N= 84, mean=0.40, standard deviation=0.26; 3) N=52; mean=0.40, standard deviation =0.26; 4) N=193, mean =0.17, standard deviation=0.23.

Such a breakdown shows that many of the non-rural residents who scored higher levels of rural social identity strength were indeed residents who grew up in rural areas and then moved to non-rural areas. Interestingly, those who grew up in rural areas and then moved away from rural areas actually display a slightly bimodal distribution of rural identity strength. This suggests that rural identity strength is concentrated among individuals who have spent some amount of time residing in a rural area at some point in their lives, i.e., that rural identity strength is related to place-based experience.

Similarly, one would expect that the more time spent living in a rural area, the stronger their rural identity strength on average. In Study 3, I asked respondents who self-identified as having grew up or as currently living in a rural or small town how long they have lived in a rural area or small town. Possible response options include less than one year, one to five years, six to ten years, 11 to 15 years, 16 to 20 years, 21 to 25 years, 26 to 30 years, and over 30 years. The time rural respondents spent in living in rural areas was slightly correlated with rural social identity strength (0.19).

The data from other studies yield similar distributions for self-identified rural residents. Figure 3.5 below shows these distributions for Lucid Studies 1, 3, and 4, as well as for the ANES 2019 data, looking at rural residents only (self-identified). Studies 1-3 used the five-item measure based on Huddy et al. to measure rural social identity strength, while Study 4 used just one of these five items – "On a scale of 1 to 10, with 1 being not at all and 10 being a lot, how much is being from a rural areas or small town part of your identity?" – with a ten-point slider response scale. The distributions from Studies 1 – 4 are very similar, with the rural identity importance in Study 4 more skewed towards higher values of the measure.

Figure 3.5: *Distribution of rural social identity strength variables for Studies 1, 3, 4, and ANES data, rural residents only.*



Rural Identity, Rural/Metro Affect, and Rural Resentment

Previous work on rural identity in political science points to rural resentment, especially against urban areas, as being a key feature (Cramer 2012; 2016). However, rural identity could also exist without such resentment against urban areas. Previous work on social identities more generally, and on rural identity in particular, posit that people who socially identify with a group should hold positive affect toward the in-group and many times – though not always – have negative affect toward the out-group (Branscombe et al. 1999; Huddy 2003). Rural social identity is a psychological

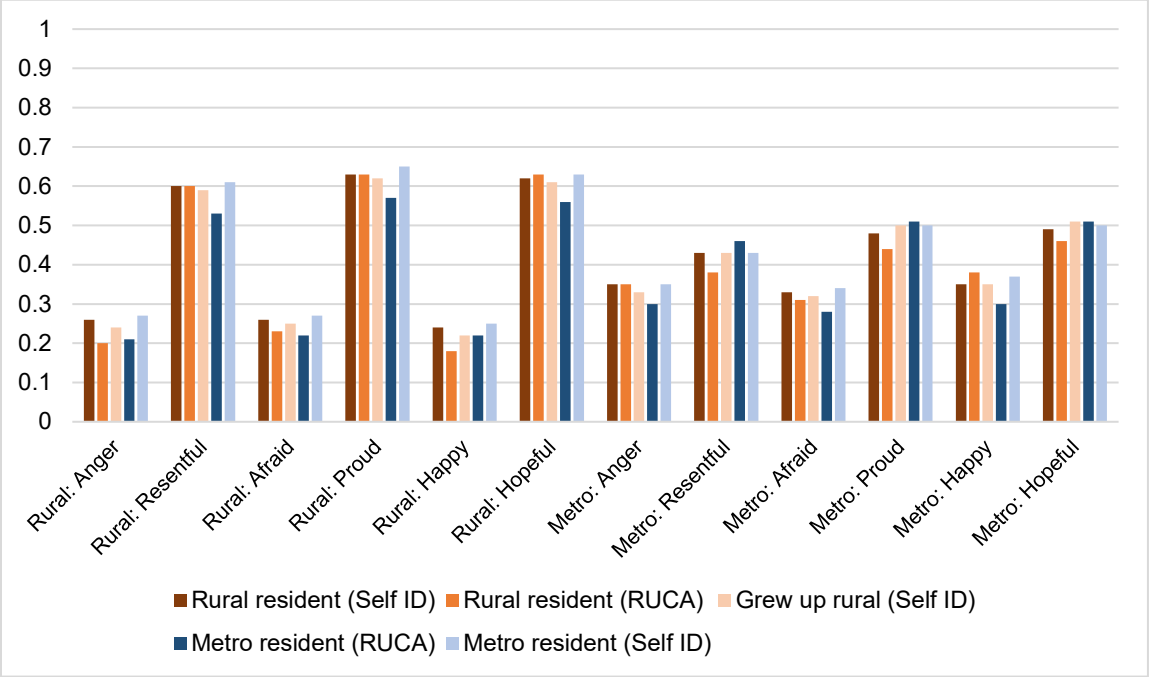
attachment to rural areas where group members derive self-esteem and other psychological benefits from being part of a group with perceived shared commonalities; rural resentment is when rural areas feel out-group dislike due to the perception that the out-group looks down on them or does not give them fair resources or representation. This section aims to test the affective dimensions of rural identity, including its expected positive affective relationship with rural areas and its negative affective relationship with metro areas.

Using Study 3 data I asked respondents to complete a series of affective evaluations for rural areas, and for metro areas, based on affective candidate evaluations found in the ANES. All respondents were asked how often they feel each of six emotions when thinking about residents of small towns and rural areas, with the six emotions being anger, proud, resentful, happy, afraid, and hopeful. The response options included "always", "most of the time", "about half the time", "sometimes", and "never". Then, respondents were asked how often the feel each of these six emotions when thinking about residents of large cities and suburbs, with the same possible response options. These variables were coded from a zero to one scale, with one being "always' and zero being "never."

Figure 3.6 below shows the means for each of the affective dimensions for rural (self-identified or RUCA) or grew up rural (self-identified) respondents – which are in shades of orange- and metro (self ID or RUCA) respondents, shown in shades of blue. The most striking feature of these results is that *very little affective differences appear* for metro versus rural residents. Across the board, on average, respondents report feeling resentful, proud, and hopeful of rural and small-town residents more often. They also

report feeling less angry, afraid, or happy about them less often. How often respondents report feelings of suburban and big city residents lie somewhere in the middle of these.

Figure 3.6: *Average scores on affective scales of urban and rural areas, by rural and urban respondents.*



Note: Metro resident (Self ID) here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Study 3 data.

Perhaps, however, rural identity strength is a better indicator of affective feelings toward these places, as would be suggested by scholars such as Huddy (2001; 2003). In particular, we would expect that rural residents who feel particularly negative feelings toward the out-group, i.e., metro residents, would also strongly identify with rural areas. Furthermore, it is unclear which of these affective measures is more significantly related to rural identity strength. Therefore, I ran OLS regression models for rural respondents only with the rural and metro affective measures predicting rural social identity strength. These results can be found in Table 3.3 below.

Table 3.3: *Predicting rural social identity strength using rural and urban area affective measures, using Study 3 data.*

	(1) Rural ID Strength *Rural Residents (Self ID) only*	(2) Rural ID Strength *Rural Residents (RUCA) only*	(3) Rural ID Strength *Grew up Rural (Self ID) only*	(4) Rural ID Strength *Metro Residents (RUCA) only*	(5) Rural ID Strength *Non-Rural Residents (Self ID) only +*
Rural: Anger	0.08	0.09	0.09	0.07	0.09
	(0.06)	(0.10)	(0.07)	(0.08)	(0.07)
Rural: Resentful	-0.06	0.07	0.05	-0.04	-0.11
	(0.06)	(0.09)	(0.06)	(0.07)	(0.07)
Rural: Afraid	0.01	0.04	0.04	0.08	0.02
	(0.06)	(0.11)	(0.06)	(0.07)	(0.07)
Rural: Proud	0.07	**0.26***	**0.12***	0.09	0.03
	(0.06)	**(0.12)**	**(0.06)**	(0.06)	(0.07)
Rural: Happy	**0.22****	**0.29***	**0.23*****	**0.22****	**0.22***
	(0.08)	**(0.13)**	**(0.07)**	**(0.07)**	**(0.09)**
Rural: Hopeful	**0.17****	0.13	**0.15****	0.12	**0.18****
	(0.06)	(0.10)	**(0.06)**	(0.07)	**(0.07)**
Metro: Anger	0.06	0.15	0.04	-0.03	0.12
	(0.07)	(0.11)	(0.07)	(0.07)	(0.08)
Metro: Resentful	0.06	0.01	0.12	**0.20****	0.02
	(0.06)	(0.09)	(0.06)	**(0.07)**	(0.07)
Metro: Afraid	0.03	-0.07	-0.03	-0.06	0.06
	(0.06)	(0.11)	(0.06)	(0.06)	(0.07)
Metro: Proud	0.03	-0.27	0.10	0.10	0.17
	(0.09)	(0.16)	(0.07)	(0.07)	(0.09)
Metro: Happy	-0.09	-0.05	**-0.21*****	**-0.14***	**-0.20****
	(0.07)	(0.11)	**(0.06)**	**(0.07)**	**(0.08)**
Metro: Hopeful	-0.01	0.22	-0.07	-0.09	-0.04
	(0.08)	(0.14)	(0.07)	(0.08)	(0.08)
Constant	**0.32*****	**0.16***	**0.30*****	**0.32*****	**0.37*****
	(0.05)	**(0.07)**	**(0.04)**	**(0.04)**	**(0.05)**
r2	0.30	0.45	0.34	0.29	0.34
N	330.00	109.00	386.00	355.00	252.00

+Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Standard errors in parentheses. Data weighted to population benchmarks. * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$.

Most strikingly, negative feelings toward metro areas do not have a statistically significant relationship with rural identity strength for rural residents (Models 1-2). The only time negative out-group affect has a significant relationship with rural identity strength is for metro respondents only (according to RUCA codes); those metro respondents higher in rural identity strength are more likely to feel resentment toward metro residents. Rural identity strength and happiness toward rural and small-town residents are also significantly correlated for this group, while rural identity strength and happiness toward suburban and large city residents are negatively correlated for metro residents (according to RUCA codes). Similarly, for non-rural self-identifiers, rural social identity strength is significantly and positively correlated with more frequent feelings of happiness and hopefulness toward rural residents, and is significantly and negatively correlated with more frequent feelings of happiness toward suburban and metro residents.

To further investigate the relationship between metro resident resentment and rural identity for rural residents, I include bivariate regressions between metro resident resentment and the rural identity strength measure (Table 3.4). The results from these bivariate regressions are more in line with expectations – metro resident resentment is positively and significantly correlated with rural identity strength for respondents who stated they grew up or currently live in a rural area. However, this relationship is not significant for rural residents according to RUCA codes.

Table 3.4: *Study 3 data showing frequency of respondent resentment toward suburban and large city residents and rural social identity strength, for rural respondents only.*

	(1) Rural ID Strength *Rural Residents (Self ID) only*	(2) Rural ID Strength *Rural Residents (RUCA) only*	(3) Rural ID Strength *Grew up Rural (Self ID) only*
Metro: Resentful	**0.19*** **	0.11	**0.25*** **
	(0.05)	(0.12)	**(0.05)**
Constant	**0.55*** **	**0.55*** **	**0.51*** **
	(0.02)	**(0.05)**	**(0.02)**

r2	0.05	0.01	0.09
N	341.00	114.00	403.00

*OLS regression results. Standard errors in parentheses. Data weighted to population benchmarks. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.*

Going back to Table 3.3 above, it is also striking that, for rural residents, rural identity strength tends to have a significant and positive relationship with positive in-group affect. More specifically, for residents who self-identify as currently living in a rural area, rural identity strength and more frequent feelings of happiness and hopefulness for rural residents are correlated. For rural residents according to RUCA codes, rural identity strength is predicted by more frequent feelings of pride and happiness toward fellow rural residents. Finally, for respondents who reported growing up in a rural area – regardless of where they live now – rural identity strength is correlated with more frequent feelings of pride, happiness, and hopefulness about rural and small-town residents. In addition, for this group, rural identity strength is negatively correlated with feelings of happiness toward suburban and large city residents.

Similar to these analyses, I also use data from the May 2019 (Study 2) and April 2020 (Study 4) Lucid surveys to corroborate the above findings on affect. For the Study 2 data, the 5-item measure described above is used to measure rural identity strength. For Study 4, this is measured using only one question from the five-item rural identity strength measure used above: "On a scale of 1 to 10, with 1 being not at all and 10 being a lot, how much is being from a rural area or small town part of your identity?" Rural residence is self-identified, with the rural resident variable designating currently a rural resident or grew up in a rural area. To measure affect toward rural and metro areas, I use feeling thermometers. Respondents were asked to rate their feelings toward rural/small town residents, with the response initially coded from 0 to 100, and of metro residents,

again with the response initially coded from 0 to 100. The question order presentation was random. These variables were then recoded to run from zero to one before running any statistical analysis.

Tables 3.5 and 3.6 below show regression results of how well the rural and metro feeling thermometer predict rural identity strength for all respondents. For the Study 2 data (Table 3.5), rural social identity strength significantly and positively predicts feelings toward rural residents, unsurprisingly. This is true of those respondents who grew up and live in a rural area, those who only currently live in a rural area, those who are white rural residents, and those who are non-white rural residents. Notably, the urban residents feeling thermometer is negative but *not significant* in any of these models. Additionally, the correlation coefficient between the urban resident feeling thermometer and rural social identity strength for those who say they live in or grew up in a rural area is 0.04 – no correlation - while for the rural resident feeling thermometer it is 0.30.

Table 3.5. *Feeling thermometers of rural and metro residents predicting rural identity strength, Study 2 data.*

	(1) Rural ID Strength *Rural (self-id), grew up and live*	(2) Rural ID Strength *Live rural area only (self-id)*	(3) Rural ID Strength *Rural (self-id), grew up and live, white respondents*	(4) Rural ID Strength *Rural (self-id), grew up and live, non-white respondents*
Rural Feeling Thermometer	**0.38*** **	**0.51*** **	**0.36*** **	**0.46***
	(0.07)	**(0.07)**	**(0.07)**	**(0.19)**
Urban Feeling Thermometer	-0.12	-0.04	-0.09	-0.22
	(0.06)	(0.06)	(0.07)	(0.17)
Constant	0.41***	0.32***	0.41***	0.42**
	(0.05)	(0.05)	(0.05)	(0.13)
r2	0.10	0.23	0.10	0.12
N	290.00	206.00	240.00	50.00

OLS regression results. Standard errors in parentheses. Data weighted to population benchmarks. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.

Similarly, in the Study 4 data (Table 3.6), rural identity strength significantly and positively corresponds with the rural resident feeling thermometer for all respondents (Model 1) and for self-identified rural residents only (Model 2). Rural identity strength for non-rural residents is positively associated with the rural feeling thermometer but it is not statistically significant (Model 3). The metro feeling thermometer significantly and negatively predicts rural social identity strength for all respondents (Model 1), though the magnitude of the effect is smaller than the effect between rural identity strength and the rural feeling thermometer. However, this relationship does not hold for rural residents (Model 2).

Table 3.6: *Feeling thermometers of rural and metro residents predicting rural identity importance (single-item 10-point scale), Study 4 data.*

	(1) Rural ID Strength *All respondents*	(2) Rural ID Strength *Rural residents only (self-id)*	(3) Rural ID Strength *Non-rural residents only (self-id)*
Rural Feeling Thermometer	**0.43*** **	**0.58*** **	0.23
	(0.10)	**(0.16)**	(0.13)
Metro Feeling Thermometer	**-0.33** **	-0.18	-0.24
	(0.12)	(0.11)	(0.15)
Constant	**0.46*** **	**0.35** **	**0.50*** **
	(0.07)	**(0.13)**	**(0.10)**
r2	0.15	0.30	0.04
N	112.00	41.00	71.00

OLS regression results. Standard errors in parentheses. Data weighted to population benchmarks. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.

These results, along with the results on the affective measures above, suggest a couple things. First, although to some extent rural social identifiers who are rural or small-town residents hold negative feelings toward metro or urban residents – i.e., rural resentment - this tendency is overshadowed by positive in-group feelings. This suggests that rural identity for rural residents is *a social identity more strongly based on in-group*

attachment, rather than the postulated out-group disdain. Second, this tendency occurs for both white and non-white rural residents. Finally, these results also suggest that rural identity is related to slightly different in-group and out-group affective concerns for current rural residents versus non-rural residents. In the case of the former, positive in-group affect appears to play a stronger role, while for the latter group both positive in-group affect and negative out-group affect appear to matter more equally.

Rural Identity and Place-Based Attachments

Finally, I also provide evidence that rural identity is both related to general affiliation or attachment to rural areas – a characteristic of place-based social identity – but is still distinct from a more general affiliation to place, which is a possibility presented by scholars such as Munis (2020). In Study 3, I asked a series of questions on how much of a sense of belonging the respondents felt to different places. These places included "my neighborhood", "my city", "my state", "my country", and "rural areas". As mentioned previously, place attachment or belonging and place identity are distinct from one another. However, they are related and place belonging is a necessary component of place identity. These questions can help to understand how general affiliation with rural areas differs from affiliation with other places, and how much rural belonging is correlated with a rural identity. The correlations between these different levels of belonging, as well as rural/non-rural residency (self-identified) for the entire sample are listed in Table 3.7.

Table 3.7*: Levels of place belonging correlated with rural residency (Self ID).*

	Belonging to neighborhood	Belonging to city	Belonging to state	Belonging to country	Belonging to rural areas	Rural resident
Belonging to neighborhood	1.00					
Belonging to city	0.69	1.00				
Belonging to state	0.62	0.70	1.00			
Belonging to country	0.45	0.51	0.58	1.00		
Belonging to rural areas	0.46	0.43	0.44	0.35	1.00	
Rural resident	-0.01	-0.05	0.03	-0.01	0.26	1.00

Source: Study 3 data (N = 825).

Although overall respondent levels of belonging to rural areas are moderately correlated with belonging to one's neighborhood, city, state, and country, these correlations are lower than those between belonging to city, state, neighborhood, and country.

How well do these measures correlate with self-identified levels of rural identity? Table 3.7 shows these correlations with current or former rural residents only (N = 497). Current or former rural residents who feel a belonging to their neighborhood, city, state, and country also tend to have a strong belonging to rural areas. But, in terms of rural identity, only belonging to rural areas is moderately to highly correlated. This suggests that rural identity is based on rural place affiliation, rather than simply an affiliation with their locale.

Table 3.8*: Levels of place belonging correlated with rural social identity, for rural residents only (Self ID).*

	Belonging to neighborhood	Belonging to city	Belonging to state	Belonging to country	Belonging to rural areas	Rural social id
Belonging to neighborhood	1.00					
Belonging to city	0.67	1.00				
Belonging to state	0.58	0.65	1.00			
Belonging to country	0.43	0.51	0.52	1.00		
Belonging to rural areas	0.53	0.52	0.49	0.41	1.00	
Rural social id	**0.25**	**0.22**	**0.22**	**0.12**	**0.48**	**1.00**

Source: Study 3 data (N = 825).

Such results suggest that rural social identity is somewhat distinct from simply feeling belonging to a particular place, which stands in contrast to some other interpretations of place-based identity (e.g., Farhart and Sheagley n.d.,; Munis 2020). That said, there are moderate correlations between rural social identity, meaning that belonging to place generally corresponds to multiple levels of place attachment.

Political and Social Correlates of Rural Identity

Race and Other Psychological and Demographic Correlates

This next section examines what correlates with rural identity; who are rural identifiers, and what distinguishes them politically? In this first subsection, I use data from Surveys 1 and 3 to predict rural identity using a variety of variables to establish its relevant correlates and characteristics.

I expect several factors to potentially correlate with stronger rural social identification. These include age, education level, income level, evangelical identification, and being white, as all of these characteristics are more typical of both rural areas and of stereotypes of rural residents, as discussed in the previous chapter. Given the uneven economic recovery of rural areas since the Recession, I also include a variable for whether being unemployed is a predictor of rural identity. As discussed in the previous chapter, a rural identity would have associated cultural norms associated with it, such as hunting recreationally. For this reason, I include a variable measuring whether the respondent likes to hunt in the model. In addition, I also control for common demographic control variables such as being Black, being Hispanic, and gender.

Previous research indicates that there may be a relationship between rural identity and right-wing political predilections, such as identifying as conservative and Republican (Cramer 2016). Further, previous research on white identity finds that rural residents are more likely to be white social identifiers (Jardina 2019); therefore, I include this in the model. Related measures of racial attitudes, particularly psychological predictors of more hostile racial attitudes such as racial resentment, social dominance orientation, and authoritarianism, have also been included. Previous research finds that need for cognitive closure – that is, a need for definitive answers – can be fulfilled by socially identifying with groups (Luttig 2018). Therefore, I also add this in as a predictor to verify that rural identity strength is not simply a measure of how much a respondent is inclined to be groupish. Finally, openness to experience – a Big 5 personality trait that is often associated with political ideology – may also be negatively affiliated with rurality, given

the discussion in the previous chapter. I therefore include it in the model as well. The question wordings for all of these measures can be found in the chapter appendix.

Table 3.9 contains the results of these predicting rural social identity using Survey 3 data, which contains all the measures discussed. As predicted, rural social identity strength is positively and significantly associated with need for cognitive closure, white identity, and hunting recreationally. Interestingly, age *negatively* predicts rural identity, controlling for other factors; this is unexpected, as place attachment tends to correlate with being older. Also surprising is that being an evangelical is negatively correlated with rural identity. It could be the case that people who are older have a clearer sense of self and have less need to associate themselves with group identities. As will be seen below, time spent living in a rural area does significantly predict rural identity strength. In addition, being employed predicts greater levels of rural identity, as well as greater authoritarianism. For only white respondents, rural identity and white identity are correlated. Partisan identity, symbolic ideology, racial resentment, race/ethnicity, and other demographic and psychological variables do not significantly predict rural identity.

Table 3.9: *Predicting rural social identity, Study 3 data.*

	Rural social identity *(Rural only)*	**Rural social identity** *(Rural only; white respondents only)*	**Rural social identity** *(Non-white respondents only)+*
Age	**-0.13****	**-0.12***	0.04
	(0.06)	**(0.06)**	(0.22)
Household Income	0.06	0.03	0.21
Level	(0.05)	(0.06)	(0.16)
Education level	-0.01	0.03	-0.16
	(0.06)	(0.06)	(0.18)
Black	0.00	-	-
	(0.05)	-	-
Hispanic	0.02	0.03	-
	(0.04)	(0.04)	-
Evangelical	**-0.07***	**-0.07***	0.02
	(0.03)	**(0.03)**	(0.07)

White Identity	-	**0.15****	-
	-	**(0.05)**	-
Unemployed	**-0.09***	**-0.08***	**-0.13***
	(0.03)	**(0.04)**	**(0.06)**
Gender = Male	0.03	0.01	0.07
	(0.03)	(0.03)	(0.07)
Party ID	0.01	0.03	0.06
	(0.04)	(0.04)	(0.09)
Symbolic ideology	0.04	0.01	0.18
	(0.05)	(0.05)	(0.14)
Likes to hunt	**0.17*****	**0.16*****	**0.22***
	(0.03)	**(0.03)**	**(0.08)**
Need for closure	**0.20****	**0.20****	0.04
	(0.07)	**(0.07)**	(0.18)
Social dominance orientation	0.15	0.16	0.04
	(0.08)	(0.09)	(0.17)
Racial resentment	0.03	0.01	-
	(0.07)	(0.07)	-
Authoritarianism	**0.12***	**0.11***	-0.05
	(0.05)	**(0.05)**	(0.15)
Openness to experience	0.00	0.03	-
	(0.06)	(0.07)	-
R2	0.27	0.23	0.21
N	433	354	0.79

Standard errors in parentheses. * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$All variables standardized from zero to one. Data weighted to population targets.
+ This was not run on non-white rural residents only because the sample size was not large enough.

Table 3.10 below repeats a similar analysis, but also includes some of the affect measures of rural and urban areas in the model, as well as variables relating to living in rural areas. These variables are theoretical precursors to having a place-based identity: a sense of belonging or affiliation with the group, positive affective attachment to the group, and actually living in these areas (group membership). Negative affective attachment to the established out-group according to previous literature, urban areas (Cramer 2016; Lyons and Utych 2021), is also included in the model to verify the rural identity measure and to compare negative out-group affect to positive in-group affect. Please see the appendix for specific question wordings of these variables.

Table 3.10*: Predicting rural social identity, Study 3 data.*

	Rural social identity

	(*Rural respondents only)*
Age	**-0.09*** **
	(0.02)
Education level	0.01
	(0.05)
Black	-0.00
	(0.05)
Hispanic	0.03
	(0.03)
HH income	0.08
	(0.05)
Unemployed	-0.04
	(0.05)
Gender = Male	0.01
	(0.02)
Party ID	-0.00
	(0.03)
Symbolic ideology	-0.00
	(0.04)
Political interest	0.09
	(0.06)
Likes to hunt	**0.07***
	(0.03)
Evangelical	**-0.06***
	(0.03)
Need for closure	**0.12***
	(0.06)
Social dominance orientation	0.09
	(0.06)
Racial resentment	-0.00
	(0.05)
Authoritarianism	-0.00
	(0.04)
Openness to experience	-0.00
	(0.05)
Feels belonging to rural area	**0.24*** **
	(0.05)
Time in rural area	**0.15*** **
	(0.04)
Negative rural affect	-0.11
	(0.07)
Positive rural affect	**0.45*** **
	(0.08)
Negative metro affect	0.11
	(0.07)
Positive metro affect	-0.01
	(0.08)

N = 430, adj. R2 = 0.50. * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$. Standard errors in parentheses. All variables standardized from zero to one. Data weighted to population targets.

Like in the findings from Table 3.9 above, Table 3.10 suggests that age and being evangelical are negatively and significantly correlated with rural social identity strength,

while liking to hunt recreationally and need for cognitive closure are positively and significantly associated. The relationship between unemployment and authoritarianism becomes insignificant.

As would be expected, rural social identity strength is positively and significantly correlated with feeling a sense of belonging to rural areas, having spent more time in rural areas, and general positive in-group affect. However, much like the findings from the above section on the decomposed affective measures, negative out-group affect *is not statistically significant,* though it is positively correlated. This stands in contrast to previous assumptions and expectations that rural identity and rural consciousness are more focused on resentment toward urban areas than feeling positively toward the in-group.

Although white identity does appear to be associated with rural identity, race and ethnicity are not. Additionally, the average scores of the rural identity strength measure do not seem to vary between race or ethnicity. The average rural identity score for whites is 0.57, while for Hispanics it is 0.58 and for blacks it is 0.58. Similar results occur using the data from the other three surveys. These results provide evidence that rural identity exists for non-white rural respondents at similar levels to white respondents.

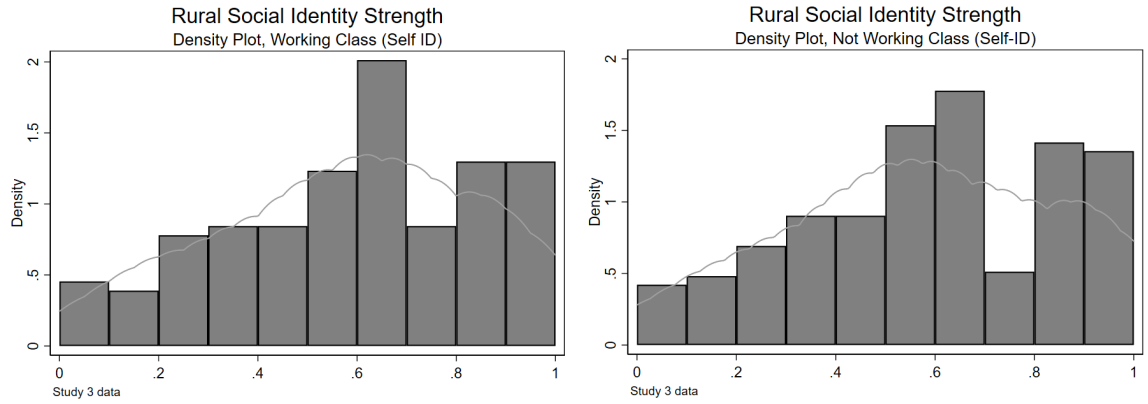
Class and Individual Economic Decline

Beyond the demographic predictors and validation measures, one major demographic factor paired with rural identity in previous literature is that rural identity has overlap with working class identity (Cramer 2012). Other literature employing the decline thesis suggests that rural areas behave as they do politically in the United States

because they are disproportionately comprised of working-class whites who have experienced economic disruption and decline for a number of reasons (Gest 2016; Hochschild 2016).

In the Study 3 data, I ask respondents which socioeconomic class they identify themselves with. This is measured using the question, "Which socio-economic class do you consider yourself to be now?" The possible responses include "poor", "working class", "middle class", "upper class", and "rich." Respondents could only select one of these options. This measure of class correlates with rural residency (subjective) at -0.11, rural residency (RUCC binary) at -0.09, and rural social identity strength at 0.09. I also find very little difference in the distribution of rural social identity strength scores between self-identified working class and non-working-class respondents (Figure 3.7).

Figure 3.7: *Rural social identity distributions for self-identified working class and not working-class respondents, Study 3.*



Left: N= 154, mean = 0.58, standard deviation = 0.27; Right: N=332, mean = 0.58, standard deviation = 0.27.

Such preliminary findings suggest that rural identity may, in fact, not be related to working class identity as much as previous scholarship suggests. Further, I also examine how income and education level – alternative proxies to class – relate to the rural social identity strength measure. Table 3.11 below shows the results of OLS regression models

predicting the relationship between rural identity strength and either income or education level, according to rural versus metro residency. In addition, correlations between rural identity strength and these two indicators can be found in the appendix; these measures have very low correlations.

Table 3.11: *Predicting rural social identity strength, Study 3 data.*

	(1) Rural Identity Strength *Rural Residents (Self ID) only*	(2) Rural Identity Strength *Rural Residents (RUCA) only*	(3) Rural Identity Strength *Grew up Rural (Self ID) only*	(4) Rural Identity Strength *Metro Residents (RUCA) only*	(5) Rural Identity Strength *Non-Rural Residents (Self ID) only +*
Household Income	**0.15***	0.01	0.11	0.10	**0.25****
	(0.07)	(0.15)	(0.07)	(0.06)	**(0.08)**
Education Level	0.09	0.10	-0.00	0.01	0.06
	(0.08)	(0.19)	(0.07)	(0.07)	(0.08)
Constant	**0.50*****	**0.51*****	**0.53*****	**0.52*****	**0.52*****
	(0.04)	**(0.10)**	**(0.04)**	**(0.04)**	**(0.05)**
r2	0.04	0.01	0.01	0.01	0.08
N	309.00	105.00	369.00	337.00	236.00

+Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Standard errors in parentheses. Data weighted to population benchmarks. Significance: + p > 0.10, * p > 0.05, ** p > 0.01, *** p > 0.001.

The results from Table 3.11 show that education level is unrelated to rural identity strength, regardless of respondent location. Furthermore, for both self-identified rural and non-rural residents, income level is significantly and *positively* related to rural social identity strength. In other words, individuals with higher levels of income are more likely to be stronger rural identifiers, which is the opposite of what prior research on the relationship between class and rural identity predicts.

Working class decline and the subsequent turn to more extreme right-wing political attitudes is not necessarily one's current socioeconomic situation, according to some scholars. Rather it is a reflection of fears over relative deprivation. For example,

Gest et al. (2018) find that nostalgic deprivation – that is, a relative perceived decline in economic, social, and political standing over time - among the white working class in the U.S. and the U.K predicts more far-right attitudes.

Although my data does not have the exact same measure of relative deprivation, I have a similar one for the relative economic deprivation. If the decline thesis is true for rural identifiers in the U.S., and that concerns of the white working class map onto rural concerns, then rural identifiers should also have similar fears of relative deprivation. However, I find that this is not the case. Stronger rural social identifiers from self-identified rural areas are actually *more optimistic* about the economic trajectory of the country, at least in August 2019. In Survey 3, I asked respondents to fill in the blank for the following opinion statements: 1) "Life in our country today is _____ than it was 50 years ago for people like me.", and 2) "When children today in our country grow up, financially speaking they will be _____their parents." For the first statement, respondents had seven response options that ranged from "much better" to "much worse." For the second statement, responses ranged on a seven-point scale from "much better off than" to "much worse off than." I rescaled these variables to go from zero to one, with one being "much worse" or "much worse off than." In both cases, rural social identity strength is negatively correlated with the better than 50 years ago item (-0.12) and with the economic prospects for the future question (-0.18).

Of course, this relationship could be due to the expected Trump support of stronger rural identifiers; when presidential co-partisans are in office, people tend to think the economy is going well or they attribute poor economic conditions to factors other than elected co-partisan officials (Bisgaard 2015). But, the Gest et al. (2018) findings

cited above were conducted after Trump had won the 2016 presidential election. To further address this potential concern, I ran OLS regression models predicting these two economic evaluation measures using only rural social identity strength as the independent variable, and then again controlling for party identity strength. The results suggest that economic evaluations now compared to 50 years ago do not significantly relate to rural social identity strength, regardless of having party identity in the model (Table 3.12 below). However, rural social identity strength does have a significant and *negative* relationship with the feeling of children being economically worse off than ourselves, even controlling for party identity. In other words, stronger rural identifiers are less likely to say that their children will be worse off economically speaking than themselves.

Table 3.12: *Predicting perceptions of relative economic deprivation, according to partisan and rural identity, Study 3 data.*

	(1) Worse than 50 years ago	(2) Worse than 50 years ago	(3) Children worse off	(4) Children worse off
Rural Social ID Strength	-0.11	-0.11	**-0.21*** **	**-0.22*** **
	(0.07)	(0.07)	**(0.06)**	**(0.06)**
Party ID	-	-0.04	-	0.00
		(0.05)		(0.04)
Constant	**0.50*** **	**0.51*** **	**0.58*** **	**0.58*** **
	(0.04)	**(0.05)**	**(0.03)**	**(0.04)**
r2	0.01	0.01	0.04	0.04
N	485.00	464.00	483.00	462.00

Standard errors in parentheses. Data weighted to population benchmarks. OLS regression results. Standard errors in parentheses. Data weighted to population benchmarks. Significance: + p > 0.10, * p > 0.05, ** p > 0.01, *** p > 0.001.

Given these results, it appears that expectations surrounding rural social identity as encapsulating concerns of working class decline do not hold, at least at the individual level. If anything, rural social identity is stronger with those who are wealthier and who have a more optimistic view of the trajectory of the economy. What could account for this unexpected finding?

Previous research finds that people who more strongly identify with politically-relevant groups tend to be higher in education, interest, and resources (Verba et al. 2003). This is because such individuals are better able to connect their experiences and surroundings to form a collective identity, and to map that identity onto politics. Further, people higher in political interest are more likely to pay attention to partisan news and information sources that provide group-based cues (Prior 2018). Under this line of thought, people who are higher in education and income level would be more likely to socially identify as rural.

To examine this explanation, I repeat the analyses in Table 3.11 above, but include an additional variable measuring political interest. This measure is the average of two survey questions: "How often do you pay attention to politics and elections?" (the response options are a five-point scale from "never" to "always"), and "How interested are you in information about what's going on in government and politics?" (response options are a five-point scale from "never interested" to "always" interested"). These two items have a scale reliability coefficient of 0.92, and an interitem covariance of 1.32. The scale was then recoded to go from zero to one, with one indicating the highest level of political interest. The results of the models including political interest can be seen in Table 3.13.

Table 3.13: *Predicting rural social identity strength, with political interest.*

	(1) Rural Residents (Self ID) only	(2) Rural Residents (RUCA) only	(3) Grew up Rural (Self ID) only	(4) Metro Residents (RUCA) only	(5) Non-Rural Residents (Self ID) only +
Household Income	0.11	-0.07	0.07	0.07	**0.19****
	(0.07)	(0.14)	(0.06)	(0.06)	**(0.07)**
Education Level	0.07	0.06	-0.05	-0.03	0.04
	(0.07)	(0.18)	(0.07)	(0.07)	(0.08)

Political Interest	**0.17****	0.19	**0.20****	**0.19****	**0.18***
	(0.06)	(0.12)	**(0.06)**	**(0.06)**	**(0.07)**
Constant	**0.42*****	**0.44*****	**0.44*****	**0.42*****	**0.44*****
	(0.06)	**(0.11)**	**(0.05)**	**(0.05)**	**(0.06)**
r2	0.08	0.05	0.06	0.05	0.12
N	309.00	105.00	369.00	337.00	236.00

+Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Standard errors in parentheses. Data weighted to population benchmarks. Significance: + p > 0.10, * p > 0.05, ** p > 0.01, *** p > 0.001. Study 3 data.

From the results in Table 3.13, we can see a change in significance for self-identified rural residents: household income is no longer significant. Meanwhile, political interest is positively associated with rural social identity strength, and is significant for all models except the rural residents according to RUCA codes model. Though household income is a factor for non-rural residents, political interest is generally more strongly associated with rural identity strength, thus backing up the argument that rural identity does not intersect with working class concerns; rather, rural identifiers tend to be more politically interested. The politically interested are, in turn, more likely to be higher in education, income level, and socioeconomic class.

That said, this relationship may be even more nuanced. In the following chapter, I take a deeper dive into the relationship between class and rural identity, and find repeated support that being part of the working class does not predict rural social identity, nor does the interaction of working class measures and rural identity predict political outcomes. I particularly look at these tendencies for white respondents, as many decline thesis accounts specifically talk about the white working class. Moreover, I not only individual-level measures of class but also take into account relative economic deprivation of respondent context. I find that rural identifiers in areas that had the strongest recovery after the Great Recession were much less likely to support right-wing politics than

average, while those in areas that had the weakest recovery after the Great Recession were more likely to support Trump, strongly identify as Republican, and strongly identify with being conservative.

Trump Support, Partisanship, and Ideology

The next section deals with rural identity and political outcomes. I first measure Trump support in the 2016 presidential election using logistic regressions. A value of one on this outcome variable counters for a self-reported vote for Trump and a zero being voted for someone else (Table 3.14). For Surveys 1 and 3 I include a model for only rural respondents, as the rural identity questions were only asked to current or former rural residents. For Survey 2, all respondents were asked the rural identity question, so there are separate models for rural respondents only, non-rural respondents only, and the entire sample.

Table 3.14: *Predicting Trump vote in the 2016 Presidential election (Trump = 1).*

	Study 1 *(Self-reported rural respondents only)*	**Study 2** *(All respondents)*	**Study 3** *(Self-reported rural respondents only)*
Rural social identity	**1.47***	**1.53****	**1.58***
	(0.59)	**(0.58)**	**(0.66)**
RUCA urban-rural	-	-0.49	-
codes	-	(0.75)	-
Party ID	**0.62*****	**5.42*****	**4.17*****
	(0.08)	**(0.61)**	**(0.55)**
Ideology (self-id)	1.10	0.78	1.06
	(0.62)	(0.77)	(0.66)
Education level	0.14	-0.10	0.72
	(0.11)	(0.68)	(0.78)
HH Income	0.39	0.02	0.04
	(0.56)	(0.59)	(0.03)
Black	-0.66	-0.52	-0.28
	(0.57)	(0.88)	(0.70)
Hispanic	**-1.29***	0.51	0.22
	(0.54)	(0.63)	(0.50)
Gender	**0.77****	**0.71***	-0.39
	(0.29)	**(0.34)**	(0.32)

Political interest	**1.47***	-0.00	**3.44****
	(0.59)	(0.18)	**(0.80)**
Religious attendance	-	0.18	-0.23
	-	(.13)	(0.46)
Age	**2.25****	1.44	0.83
	(**0.71)**	(0.76)	(0.71)
Union Member	0.24	-	-
	(0.33)	-	-
White identity	-	-	0.05
	-	-	(0.57)
Race identity	-0.33	-	-
	(0.70)	-	-
White	-0.00	0.61	-
	(0.48)	(0.58)	-
Need for closure	-0.05	-	1.53
	(0.83)	-	(0.92)
Racial Resentment	**2.22***	**1.68***	0.97
	(0.91)	**(.75)**	(0.74)
Authoritarianism	0.50	-	-0.19
	(0.48)	-	(0.58)
Social dominance orientation	0.84	-	**3.04****
	(0.93)	-	**(1.00)**
Pseudo r2	0.61	0.58	0.47
N	326	460	515

*Note: Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.*

According to these results, rural social identity consistently predicts support for Trump in 2016 for self-identified voters, even controlling for a myriad of variables known or expected to predict support for Trump. This comports with previous literature expecting this relationship (Mendelberg 2017). Notably, Trump vote is also significantly predicted by rural social identity for non-white rural respondents as well using Study 3 data, though this was done in a bivariate model because the number of rural non-whites in the sample is fairly low (N = 51). Further, the average rural social identity strength score for rural residents (self-identified) is 0.62 for non-white Trump voters (N = 23), 0.43 for non-white non-Trump voters (N = 9), 0.52 for white Trump voters, and 0.44 for white non-Trump voters. See chapter appendix for details.

Similarly, we would also expect, given prior literature, that rural social identifiers would be more inclined toward Republicanism and/or being conservative (Cramer 2016; Wuthnow 2019), though it is unclear if the relationship would occur with symbolic ideology, operational ideology, or both. Table 3.15 below shows the results of OLS regressions predicting partisan identity, while Table 3.16 shows the results of OLS regressions predicting a seven-point symbolic ideology scale.

Table 3.15: *Predicting the 7-point party identity scale.*

	Study 1 *(Self-reported rural respondents only)*	**Study 2** *(All respondents)*	**Study 3** *(Self-reported rural respondents only)*
Rural social	**0.14***	0.06	0.04
identity	**(0.07)**	(0.05)	(0.05)
Symbolic ideology	**0.14***	**0.08*****	0.63
	(0.07)	**(0.01)**	(0.08)
Black	**-0.22*****	**-0.20*****	**-0.24*****
	(0.05)	**(0.05)**	**(0.06)**
Hispanic	-0.07	-0.08	0.04
	(0.06)	(0.04)	(0.06)
HH Income	**0.15***	**0.11***	-0.03
	(0.06)	**(0.05)**	(0.07)
Education level	0.05	0.01	**-0.26****
	(0.10)	(0.06)	**(0.09)**
Gender	0.01	**0.08****	0.01
	(0.03)	**(0.03)**	(0.03)
Age	-0.07	-0.06	-0.03
	(0.06)	(0.06)	(0.08)
Evangelical	-	-	-0.06
	-	-	(0.04)
How religious?	-	**0.13****	-
	-	**(0.04)**	-
Political interest	0.04	0.03	0.08
	(0.06)	(0.02)	(0.06)
Racial resentment	0.18	**0.27*****	**0.21***
	(0.12)	**(0.06)**	**(0.08)**
Authoritarianism	**0.11***	-	-0.07
	(0.05)	-	(0.06)
Social Dominance	**0.24****	-	**0.22***
Orientation	**(0.12)**	-	**(0.11)**
r2	0.43	0.42	0.49
N	518	466	397

*Note: Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.*

Table 3.16: *Predicting 7-point symbolic ideology scale.*

	Study 1 *(Self-reported rural respondents only)*	**Study 2** *(All respondents)*	**Study 3** *(Self-reported rural respondents only)*
Rural social identity	**0.13*** **(0.06)**	-0.36 (0.24)	**0.10*** **(0.05)**
Black	-0.04 (0.04)	-0.13 (0.24)	-0.04 (0.05)
Hispanic	-0.04 (0.05)	-0.35 (0.24)	-0.05 (0.04)
HH Income	0.07 (0.05)	0.17 (0.25)	**0.12*** **(0.06)**
Education level	0.01 (0.08)	-0.34 (0.28)	-0.07 (0.07)
Gender	0.00 (0.03)	-0.01 (0.14)	-0.02 (0.03)
Age	0.11 (0.06)	0.13 (0.31)	0.10 (0.06)
Evangelical	- -	- -	**-0.07*** **(0.03)**
How religious?	- -	**0.73**** **(0.21)**	- -
Political interest	**0.13*** **(0.06)**	- -	**0.13*** **(0.06)**
Racial resentment	**0.45***** **(0.10)**	**3.20***** **(0.28)**	**0.48***** **(0.06)**
Authoritarianism	**0.15**** **(0.04)**	- -	0.04 (0.05)
Social Dominance Orientation	**0.34***** **(0.07)**	- -	0.05 (0.09)
r2	0.31	0.29	0.34
N	533	487	412

*Note: Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.*

Contrary to expectations, rural social identity strength does not consistently predict partisanship, controlling for other factors. This is in line with more recent work that finds that place consciousness is not predictive of partisanship (Munis 2020). But for rural respondents, stronger rural social identity does predict symbolic conservatism. Interestingly, when looking at the entire sample in the Study 2 results, this relationship not only becomes insignificant; it also becomes negative.

In addition, rural social identity strength for non-white rural residents does not significantly predict party identity using Study 3 data, but it does significantly predict more conservative symbolic ideology (see chapter appendix for details). The average rural social identity strength score for non-white rural residents (self-identified) is 0.61 for those who identify as conservative and 0.50 for those who identify as liberal. For reference, both conservative and liberal white rural residents have an average rural social identity score around 0.40. For party identity, the average rural social identity strength score for white and non-white rural Democrats is around 0.42. For white Republicans it is 0.50 and for non-white Republicans it is 0.46. For non-white rural Independents it is 0.57 and for white rural Independents it is 0.51.

To see whether this tendency holds with operational ideology, I construct three dependent variables to measure the concept: positions on economic issues, positions on social issues, and positions on immigration. Positions on economic issues are based on two questions measure how much the respondent supports raising minimum wage to $15/hour, and how much the respondent supports more government spending on services. These questions have seven-point response option scales ranging from strongly oppose to strongly support. The responses to these two questions have a scale reliability coefficient of 0.70. I averaged these items together, reverse coded them so higher values indicate more conservative stances, and rescaled the measure to go from zero to one.

Second, positions on social issues encompass how much respondents support policies to combat climate change, and how much respondents support stronger background checks for firearms. These questions had seven-point response scales ranging from strongly oppose to strongly support. The responses to these two questions have a

scale reliability coefficient of 0.71. Again, I averaged these items together, reverse coded them so higher values indicate more conservative stances, and rescaled the measure to go from zero to one.

Finally, immigration has been an issue very central to politics recently, particularly for populist politicians and their supporters. Further, immigration is a complex issue which spans both the social and economic realms. Therefore, I create a separate ideological measure for immigration attitudes. Respondents were asked how much they support the separation and detention of migrants at the U.S.-Mexican border, and how much they support stricter immigration laws. These questions had seven-point response scales ranging from strongly oppose to strongly support. The responses to these two questions have a scale reliability coefficient of 0.67. Again, I averaged these items together and rescaled the measure to go from zero to one.

The results of the OLS models predicting these three outcome measures, using Survey 3 data, are shown in Table 3.17 below. Very notably, the only significant relationship between rural identity and the outcome measures is the immigration attitude scale, once control variables are accounted for. In other words, stronger rural identifiers tend to hold stronger anti-immigration attitudes. This relationship even holds when only looking at non-white (and only white) rural respondents. Interestingly, just looking at correlations between conservative immigration stances and rural social identity by rural respondent race, the correlation is 0.29 for whites, 0.44 for blacks, and 0.42 for Hispanics.

Table 3.17: *Predicting operational ideology, Survey 3 data, self-identified rural respondents.*

	(1) Economi	(2) Social	(3) Social	(4) Immigratio	(5) Immigratio	(6) Immigratio	(7) Immigratio

	c Issues *All rural*	Issues *All rural*	Issues *All rural*	n Issues *All rural*	n Issues *All rural*	n Issues *White rural*	n Issues *Non-white rural*
Rural ID	0.13	**0.25****	0.09	**0.43*****	**0.26*****	**0.22****	**0.27*****
	(0.10)	**(0.10)**	(0.07)	**(0.08)**	**(0.07)**	**(0.08)**	**(0.07)**
Party Identity	-	-	**0.26*****	-	0.13	0.12	0.09
			(0.06)		(0.07)	(0.08)	(0.06)
Symbolic Ideology	-	-	-0.00	-	**0.22***	0.20	**0.25****
			(0.08)		**(0.09)**	(0.10)	**(0.08)**
Racial Resentment	-	-	**0.29*****	**-**	**0.33*****	**0.33*****	**0.32*****
			(0.08)		**(0.07)**	**(0.07)**	**(0.07)**
Black	-	-	0.07	-	0.11*	-	-
			(0.06)		(0.05)		
Hispanic	-	-	0.09	-	**-0.11***	-0.15	-0.11
			(0.06)		**(0.05)**	(0.08)	(0.06)
Age	-	-	-0.12	-	0.01	0.04	-0.00
			(0.07)		(0.07)	(0.07)	(0.07)
Education Level	-	-	0.09	-	-0.02	-0.01	-0.05
			(0.08)		(0.07)	(0.09)	(0.07)
Income	-	-	-0.06	-	0.03	0.03	0.03
			(0.07)		(0.06)	(0.06)	(0.06)
Female	-	-	-0.06	-	-0.01	0.00	0.00
			(0.04)		(0.03)	(0.04)	(0.03)
White Identity	-	-	-	-	-	**0.16***	-
						(0.07)	
Constant	0.37***	0.20*** *	0.03	0.31***	0.04	-0.07	0.07
	(0.05)	(0.04)	(0.08)	(0.04)	(0.07)	(0.09)	(0.06)
r2	0.01	0.05	0.34	0.14	0.51	0.51	0.50
N	224.00	226.00	205.00	225.00	204.00	169.00	204.00

Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.

Given the support for Trump – who made harsher policies on immigration a cornerstone of his campaign in 2016 - and the anti-immigration attitudes among rural identifiers, I believe immigration and attitudes toward immigrants is a key factor in rural identity and its political expression in the United States. Therefore, rural identity may not be explicitly class-based; however, it is very strongly linked with populist concerns over migrants. In a later chapter I further investigate this link and conclude that immigrants,

particularly undocumented immigrants, serve as an out-group for many rural identifiers. Immigrants are seen as an out-group because rural areas occupy a middle position in the societal status hierarchy: therefore, right-wing populism (as defined by Mudde and Kaltwasser 2017) is a natural framework that maps onto rural identifiers, who see themselves as positive representatives of the American people getting stepped on by elites (experts in urban areas) who favor immigrants perceived to be cutting in line ahead of rural areas (Hochschild 2016). To round out this argument, I also examine anti-intellectualism – a distrust of experts and intellectuals - as a group-based norm of rural identifiers in the final substantive chapter of this project. I measure anti-intellectualism using part of Oliver and Rahn's (2016) populism measure; notably, I find that the other part of the measure – distrust of political elites – is not significantly associated with rural identity (see chapter appendix for details, as well as Chapter 6). These findings hold for rural white and non-white respondents. Rural social identity strength and anti-intellectualism are moderately correlated for white rural respondents at 0.27 and for black rural respondents at 0.21, and for Hispanics they are correlated at 0.35.

Summary and Discussion

This chapter serves to distinguish some of the characteristics and contours of rural social identification, and to clarify some points in previous research on the topic. First, rural social identity strength tends to be stronger among rural residents, particularly among those who self-identify as living in a rural area versus living in a rural area according to objective measures of rural residency. Second, rural social identifiers who live in rural areas are actually more in-group oriented than defined by negative feelings toward urban areas; rural social identity strength positively corresponds with general positive feelings toward rural residents, and with more often feeling proud, hopeful, and

happy about rural areas – compared to any feelings toward metro or urban areas. This is true of both white and non-white rural residents.

Next, stronger rural identifiers, in contrast to previous assumptions and expectations not only focusing on rural identity (Cramer 2012; 2016) but also rural identity potentially linked with white working-class interests and decline (Fukuyama 2018), are not more likely to be working class or lower in income/education level. Further, they are actually optimistic about the economic future of their children. If anything, being higher in socio-economic status corresponds with greater rural social identification. This is likely due to higher socio-economic status individuals being better at linking their identities and surroundings with politics; further, those higher in class are also more politically active and interested. I delve into this relationship more in the next chapter. In addition, I also find that average rural social identity strength does not significantly differ across race or ethnicity. Thus, confounding rural identifiers (and, as I examine in the next chapter, rural conservatives) with the white working class is a potentially misleading and problematic assumption.

Politically speaking, rural social identity corresponds to the expected political outcomes: stronger rural identifiers tend to Trump in 2016, tend to be stronger Republicans (though the significance on this relationship is mixed), and tend to ideologically identify as more conservative. In terms of issue stances, however, stronger rural identifiers are not more economically or socially conservative, controlling for other factors. However, they are much more likely to support restrictive measures on immigration. In Chapter 5 I talk about how views toward immigrants – following the logical of rural identity's perceived middle position within the status hierarchy – lends

itself to the structuring of right-wing populist ideology. This leaves immigrants as another significant out-group for rural identifiers beyond the general urban/metro out-group. Finally, I find that stronger rural social identifiers are more populist than weaker rural identifiers. Notably, however, they are more populist along the anti-intellectualism/anti-expert dimension, but not along the political anti-elitism dimension. I examine this in more detail, as well as rural social identity strength's relationship with health and science misinformation endorsement, in Chapter 6.

CHAPTER 4: Decoupling Rural (and Rural Identity) from the Working Class

Narratives after the 2016 presidential election often spoke of the rural white working-class voter coming out in droves to support Republican presidential candidate Donald Trump (Cohn 2016; Francis 2018; Fukuyama 2018; Mendelberg 2017). This narrative echoes the popular and academic explanation that certain groups within society have experienced economic relative deprivation, thus fueling resentment that drove populist support for Trump in 2016 (Gest 2016; Sides et al. 2017). According to this, the groups more likely to have felt this relative economic decline are often the white working class or rural residents, whose blue-collar jobs in manufacturing, agriculture, and more have taken a particular hit in recent decades (such as Scala and Johnson 2015, but see Rothwell and Diego-Roswell 2016).

Further, previous scholarship on the role of rural social identity in predicting candidate support – especially for outsider Republicans – points to the importance of working-class membership in this equation (Cramer 2016; Cramer Walsh 2012). Cramer, in fact, argues that rural identity and consciousness are intertwined with economic circumstances. Similarly, studies on the relationship between racial and ethnic minority identity strength and political behavior (such as voter turnout) find that stronger racial or ethnic identity strength varies across personal and community economic or class indicators (Jardina 2018; Valenzuela and Michelson 2016). The tendency in such studies is that stronger racial or ethnic identity is affiliated with lower socioeconomic levels, similar to what is proposed by Cramer.

However, these assertions of the link between rurality – especially rural social identity – and class have not been formally tested. What is the relationship between rural

social identity, (or rural residency) and class when predicting recent Republican support in the United States, particularly among whites? Answering such a question tests the popular and academic narrative of the 2016 presidential election where rurality and rural identity are linked with right-wing support via white working-class membership, and it tests the theoretically proposed nature of rural social identity.

In fact, there may be reason to believe that there is either no relationship between class and rurality when predicting right-wing support for whites especially, or that rural identity is linked to political outcomes for the middle to upper classes. First, older scholarship finds that middle class rural residents have supported the radical right in places such as 1930s Germany due to the economic insecurity of the middle class, or the threat of it (Loomis and Beagle 1946); this stood in contrast to the poor and working class in cities which were more left-leaning or Communist. This is not to say that middle class rural whites are Nazis; rather, I instead emphasize that we should be careful with *confounding* rural with working class – other socioeconomic classes do exist in rural areas, after all - or assuming that rural areas necessarily act on the same political impulses of the white working classes in metro areas.

Second, it could also be the case that rural identity in particular is strongly tied to a lack of status, respect, and dignity (Cramer 2016; Fukuyama 2018; Lunz Trujillo and Crowley 2020), which is in line with expectations from Social Identity Theory (SIT). SIT scholarship argues that social identification is based on symbolic concerns rather than material conflict (Tajfel and Turner 1979; Huddy 2003), though material conflict can play a role. This has two possible implications that run counter to prevailing wisdom. The first is that class may not relate to rural identity and political outcomes in any meaningful

way. More generally, economic self-evaluations have not consistently predicted political behavior in the public for the most part (Achen and Bartels 2016; Sears and Funk 1990), though other research has found that factors such as personal income matter in some locations over others (Gelman 2009). Rather, group identity and sociotropic economic concerns are more notable. For instance, many accounts of support for Trump suggest that the concern driving his support is mostly symbolic or sociotropic economic in nature (Mutz 2018; Sides et al. 2017).

An alternative possibility is that middle to upper class rural individuals could be more focused on the symbolic aspect because the material aspect, at a personal level, is less of an immediate concern. This is further cemented by previous research finding that those who are more politically engaged in general tend to have more resources (Brady et al. 1995), and are also more apt to link themselves and their immediate surroundings to political groups and grievances (Federico 2004; Mason 2018). Relatedly, the working class in Detroit were less likely to affiliate with the partisan leaning of their neighborhood; perhaps poorer or working-class individuals are, for whatever reason, less apt to link their environmental circumstances to politics (Huckfeldt 1984). In other words, in contrast to the expectation that rural residents or rural identifiers who are white working class more strongly support the right, rural residents or stronger rural identifiers support the right if they are higher in class indicators such as income, education level, and self-identified class membership.

That said, it is true that rural areas do have proportionately more white working class and non-college degree whites than metro areas do (Farragan 2020), including lower income levels on average (though this is complicated as cost of living tends to be

lower in rural areas as well). Rural areas are also disproportionately white, though a significant number of non-whites (20-25%) do live in rural America (Illing 2017). Therefore, perhaps in some ways it does make sense to say the white working class and rural Americans are related, politically speaking. But it does not mean that these two groups are *necessary* going to behave the same ways, or for the same reasons. Further, this does not answer the question of the proposed theoretical link between rural identity and the working class when understanding rural political behavior.

In the previous chapter, I consistently found no link between class variables and rural identity. In this chapter, using ANES, CCES, and original survey data, I test whether rural residents or rural social identifiers – particularly whites - who are low to medium in income and education level were more likely to support Donald Trump in the 2016 election or were more likely to trust Trump. Notably, I find that there is consistently little to no relationship between rurality and class variables for white voters when predicting Trump support. Further, I find that at times rural social identity strength predicts Trump support more for white voters *higher* in class indicators, which runs counter to previous expectations (Cramer Walsh 2012). In other words, there is no tendency for less educated and working-class rural whites to identify socially with rural areas, or for rural working-class white voters to vote Trump compared to those in other classes; white rural social identifiers more associated with higher class membership are more likely to support a right-wing outsider presidential candidate. Again, such findings echo those in Chapter 2 (Tables 3.8-3.10, 3.12), as well as in studies on general place consciousness (Munis 2020); here, rural social identity is not significantly linked with variables relating to class, specifically with household education level, income level, and

self-identified working-class membership. In other words, rural identity and indicators of class may not be related in the way we think, and we may be politically oversimplifying or even conflating the white working class with rurality and rural identity.

However, using county data that represents 94% of all counties in the United States, I also find that median income loss between 2010 and 2016 predictes a greater vote share percentage supporting the Republican presidential candidate in 2016 (Donald Trump) compared to the percentage supporting the Republican presidential candidate in 2008 (John McCain). This is only true in non-metro counties; in metro counties, a decrease in median income actually corresponds to a *decrease* in support for the Republican presidential candidate. This falls in line with findings from previous scholarship (such as Ogorzalek et al. 2019), but with added nuance; relative economic decline has different effects for metro versus non-metro areas. In addition, county manufacturing and mining dependence had a very small effect on Republican candidate county vote share change over time (and agriculture has no significant effect at all) once other factors are controlled for, which does run counter to some narratives of what drives the urban-rural voting divide in the U.S. (Rodden 2019; Scala and Johnson 2015; Scala et al. 2017). This is, however, in line with other research finding that whites living in places where manufacturing has been in decline since 1990 were not more likely to be Trump supporters (Rothwell and Diego-Roswell 2016).

Then, I merge together the individual-level original survey data and the county-level data set and employ a series of multilevel models. I find that rural identifiers are much more likely to have supported Trump, to identify as Republican, or to say they are stronger conservatives, <u>if</u> they live in areas of greater economic decline. Conversely,

stronger rural identifiers who live in areas that have experienced gains in median income are unlikely to have supported Trump in 2016, or to say that they identify as Republican. Since we know from the other analyses in this chapter that rural identifiers who support Trump tend to be higher in income and education, it appears that working class decline explanation applies to rural identifiers who have concerns about their local economic conditions but not necessarily about their personal socioeconomic status. This is somewhat related to recent scholarship, which finds that Trump support is higher among higher income individuals in areas of local economic decline (Ogorzalek et al. 2019); though I add nuance to this by looking at urban-rural differences.

Part I. Individual Class, Rural Identification, and Right-Wing Support

As noted above, this first section deals with looking at whether rural social identification and rurality predict support for Trump for those white voters who are lower in education level or for those who make low to moderate income. This is accomplished by using multiple cross-sectional survey data sets to examine the relationship between rurality and class variables, as well as between rural social identity strength and class variables, to predict support for Trump. Particular attention is given to white voters, given popular and scholarly expectations.

Methods and Analytical Strategy

To test these expectations, I rely on four survey data sets – two from Lucid (Studies 2 and 3), one from an ANES (2019) pilot, and one from CCES (2018). Technical information about these weights can be found in Table A4.1 in the Chapter 3 appendix.

The first variable I operationalize is rural residency. There are various ways to define and measure these terms, and decades of academic research by sociologists,

demographers, public health scholars, and recently political scientists have debated the best way to do so (Hart et al. 2005; Nemerever and Rogers 2020). Researchers often use definitions and quantitative scales created by government agencies based on objective criteria, such as population density, population size, and distance from metropolitan centers. These include measurements such as the Rural-Urban Continuum Codes ("RUCC"), which was developed by the USDA[3] and are based on Census tracts and are defined according to metropolitan center size and population size, and whether the county is adjacent to these metropolitan centers. I use RUCC codes as an objective measure of rurality for the Lucid data. The Chapter 2 appendix contains more information on defining and measuring "rural" and "urban", and the Chapter 4 appendix contains more information about the RUCC measure categories.

To measure subjective rural self-identification, the Lucid data respondents were asked if they live in a rural area now (response options were again "yes" or "no"). The correlation between a current metro resident according to the binary measure developed from the RUCC codes and a current self-identified rural resident is 0.43. To measure rural identity strength, I used the adapted five-item partisan identity strength scale by Huddy and colleagues (Huddy 2001; 2013; Huddy et al. 2015) described in Chapter 3.

Similarly, rural residency in the ANES data is measured according to whether the respondent said that they currently live in a rural area or small town. Rural identity strength is measured according to how important the respondent feels being from a rural area is to them, and is measured using a three-part question (ANES wording based on

[3] Please see documentation on RUCC codes from the USDA website here: https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation/ and in the chapter appendix.

Munis 2020). Respondents were first asked where they currently live, and then they were asked where they grew up. If respondents answered "rural area" for either of those two responses, then they were asked how important being a "country (or rural) person" is to their identity, with five possible responses ranging from "not at all important" to "extremely important". Non-rural respondents were not asked whether being a rural person is important to them.

Finally, the CCES data measures rural residency by asking people whether they currently live in a city, suburb, town, rural area, or other. Rural residency is operationalized where a 1 indicates rural or town residency, and 0 is everything else. The CCES does not contain a measure of rural social identity strength or importance.

I measure class using three objective variables and one subjective variable. The first two objective measures - household income level and education level - are measured using the variables provided by Lucid or the ANES. For Lucid, education level is respondent-identified according to a seven-point scale, while yearly household income options are presented on a 24-point scale of income brackets. For the ANES and the CCES, education contains six response options while household income contains 16 possible respondent values. Details of the different values can be found in the chapter appendix. In addition, I also create a measure of education for all data sets that is a binary college-educated (1) versus never got a college degree (0). For the Lucid data, this income measure is correlated with subjective rural residency at -0.00, with objective rural residency at -0.09, and with rural social identity strength at 0.02. The education variable is correlated with subjective rural residency at -0.06, with objective rural residency at -0.05, and with rural social identity strength at -0.01. Among subjective rural respondents,

36% have a college degree, while 40% of objective rural respondents have one and 41% of subjective rural respondents with a rural social identity strength of greater than 0.50 have one.

The August 2019 Lucid (Study 3) data also includes a subjective measure of class identification. This is measured using the question, "Which socio-economic class do you consider yourself to be now?" The possible responses include "poor", "working class", "middle class", "upper class", and "rich." Respondents could only select one of these options. This measure of class correlates with rural residency (subjective) at -0.11, rural residency (RUCC binary) at -0.09, and rural social identity strength at 0.09. For only white respondents, these correlations are -0.14, -0.10, and 0.08, respectively. This suggests that a more objective measure of rurality captures a slightly lower-class identity, on average, than subjective measures.

This analysis uses three outcome variables. The first is whether the respondent says that they voted for Trump in 2016 (1 = yes, 0 = no), rather than voting for someone else. This variable is confined to people who said that they voted in the 2016 presidential election. This is a dependent variable for the Lucid, ANES, and CCES analyses. Since this measure is subject to social desirability bias, as respondents tend to overreport whether they voted, and since a respondent may support Trump even though they did not vote, I use a second measure of Trump support in the May 2019 Lucid data. This second measure is based on a question asking respondents how much they trust Donald Trump according seven-point scale, with higher values indicating greater trust in Trump. Please see the chapter appendix for wording details. Lastly, I analyze the standard seven-point party identity scale as a dependent variable.

Finally, the analysis also includes demographic control measures that could account for other factors potentially driving Trump support. These include measures for age (continuous variable), gender (binary measure), race/ethnicity (a binary variable for Black, another for Hispanic, and another for White), party identity strength (7-point scale), symbolic ideology (7-point scale), and racial resentment items (a four-item additive scale). All variables have been standardized from zero to one. Please see the appendix for details on the racial resentment, symbolic ideology, and party identity items.

To analyze these data, I employ either OLS or logistic regressions containing interactions between the measures of class and rural residency, or between class and rural social identity strength, predicting either voting for Trump in 2016, party identity strength, or in Donald Trump. For each model, I repeat the analysis for all respondents and for only white respondents, as theoretically we expect the rural white working class to support Trump. Furthermore, previous research finds that white identifiers are more likely to be rural, as white identity and rural identity may share similar senses of alienation and unfairness (Jardina 2019).

Results

In Table 4.1 below, I interact self-identified rural residency and three measures of class – education level (continuous), yearly household income level (continuous), and college-educated (binary) to predict support for Trump in the 2016 election. As noted above, I run these models for all respondents and for only white respondents. Results using the objective urban-rural measure instead of self-identified rural residency can be found in the chapter appendix; this yields a similar result where rural residency interacted with class variables are not statistically significant when predicting Trump vote.

Table 4.1: *Predicting self-reported vote for Trump in 2016, for all voting respondents and only white voting respondents, with interactions between rural and class variables.*

	(1) Trump Vote 2016 *All Voters*	(2) Trump Vote 2016 *All Voters*	(3) Trump Vote 2016 *White Voters*	(4) Trump Vote 2016 *All Voters*	(5) Trump Vote 2016 *All Voters*	(6) Trump Vote 2016 *White Voters*	(7) Trump Vote 2016 *All Voters*	(8) Trump Vote 2016 *All Voters*	(9) Trump Vote 2016 *White Voters*
Rural Resident (Subjective)	**1.60***	2.29*	**2.80***	*2.26+*	1.32	3.20	1.12	1.42	1.77
	(0.38)	(0.90)	**(1.37)**	*(0.95)*	(0.88)	(2.55)	(0.58)	(1.36)	(1.93)
College Degree	0.67	1.11	1.43	-	-	-	-	-	-
	(0.17)	(0.46)	(0.60)						
Income Level	-	1.28	1.66	1.87	0.96	2.02	-	1.36	1.63
		(0.72)	(1.02)	(0.94)	(0.70)	(1.51)		(0.76)	(1.02)
Education Level	-	-	-	-	0.75	1.55	0.50	0.56	1.16
					(0.58)	(1.27)	(0.29)	(0.61)	(1.32)
Party ID	**-**	**107.77*** **	**103.68*** **	**-**	**110.67*** **	**104.57*** **	**-**	**111.57*** **	**108.33*** **
		(55.01)	**(59.06)**		**(57.12)**	**(60.75)**		**(58.31)**	**(64.53)**
Racial Resentment	**-**	**10.82*** **	**10.70****	**-**	**11.72*** **	**10.16***	**-**	**10.53*** **	**10.07***
		(7.37)	**(9.80)**		**(8.05)**	**(9.23)**		**(7.33)**	**(9.31)**
Hispanic	-	1.42	1.29	-	1.39	1.30	-	1.41	1.34
		(0.58)	(0.63)		(0.58)	(0.64)		(0.59)	(0.69)
Female	-	0.92	0.87	-	0.94	0.88	-	0.95	0.88
		(0.32)	(0.33)		(0.32)	(0.34)		(0.33)	(0.35)
Political Interest	-	*4.23+*	*4.52+*	-	*4.29+*	*4.64+*	-	*4.47+*	*4.61+*
		(3.18)	*(3.71)*		*(3.30)*	*(3.91)*		*(3.43)*	*(3.90)*
Age	-	0.34	0.35	-	0.35	0.35	-	0.36	0.36
		(0.27)	(0.30)		(0.27)	(0.30)		(0.29)	(0.32)
Symbolic Ideology	-	**5.92***	**15.04*** **	-	**5.62***	**14.80****	-	**5.71***	**14.03****
		(4.18)	**(12.22)**		**(4.04)**	**(12.18)**		**(4.16)**	**(11.98)**
Rural X College	1.33	0.72	0.72	-	-	-	-	-	-
	(0.54)	(0.50)	(0.57)						
Rural X Income	-	-	-	0.94	2.40	0.58	-	-	-
				(0.77)	(2.96)	(0.80)			
Rural X Education	-	-	-	-	-	-	2.45	1.87	1.83
							(2.21)	(3.16)	(3.36)
N	601.00	563.00	456.00	568.00	563.00	456.00	601.00	563.00	456.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models; odds ratios shown. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (August 2019) data used.

Figure 4.1: *Predicted marginal effects of self-reported vote for Trump in 2016, by measures of class and rural residency, for white respondents who voted.*

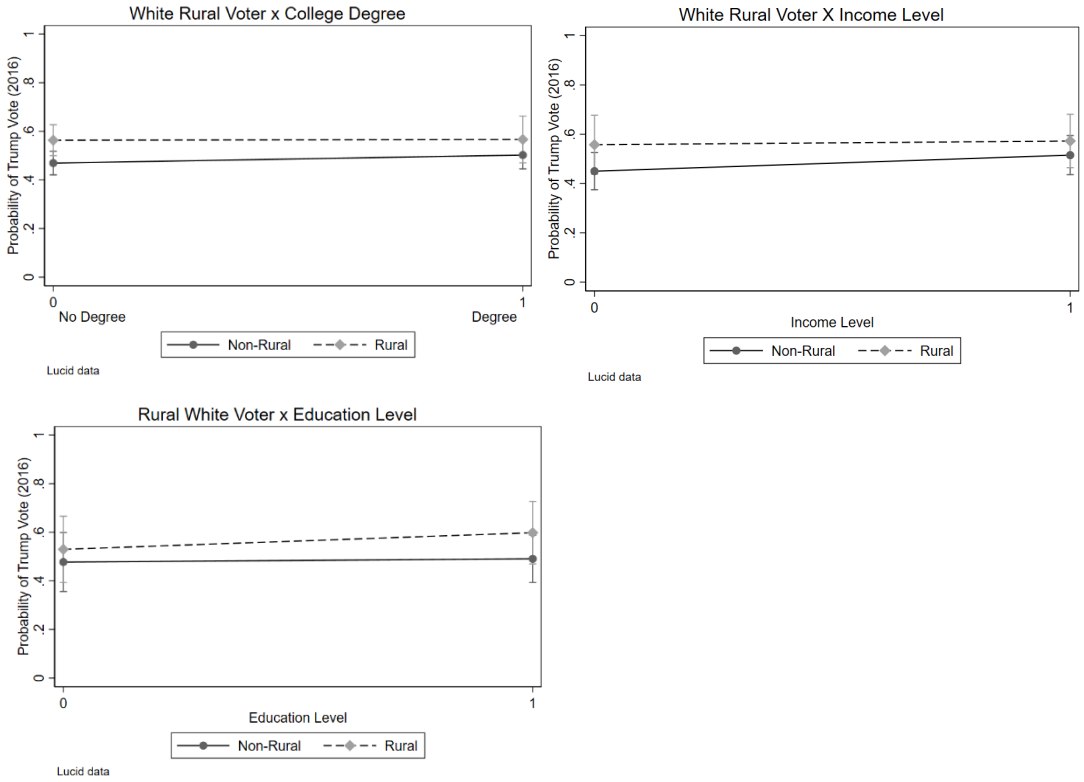
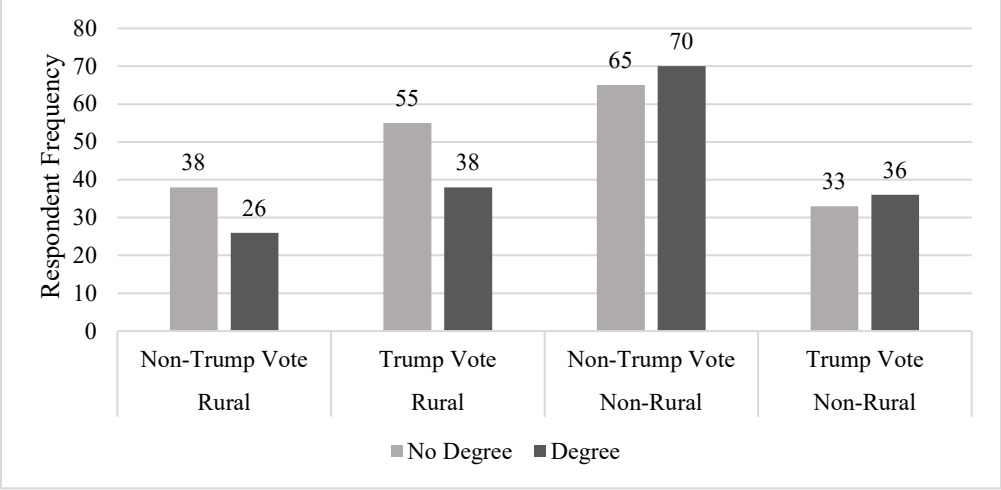


Table 4.1 indicates that, controlling other factors, measures of class do not significantly interact with rural residency to predict Trump support. This is true for all respondents who indicated that they voted, as well as for white respondents who indicated that they voted. Figure 4.1 above shows these dynamics in marginal effects plots for the respondent models with white voters (Models 3, 6, and 9). In each case, a similar pattern emerges. Regardless of rural residency or non-rural residency, there is little relationship between class variables and Trump support in 2016. For white rural voters, the probability of voting for Trump in 2016 is flat across the class variables, except for education level, which actually shows that *higher* levels of education slightly (but not significantly) predict higher support for Trump. Therefore, the lack of a

relationship between rural residency and objective class indicators starkly suggests that the narrative of the rural white working-class supporting Trump in 2016 may be insufficient.

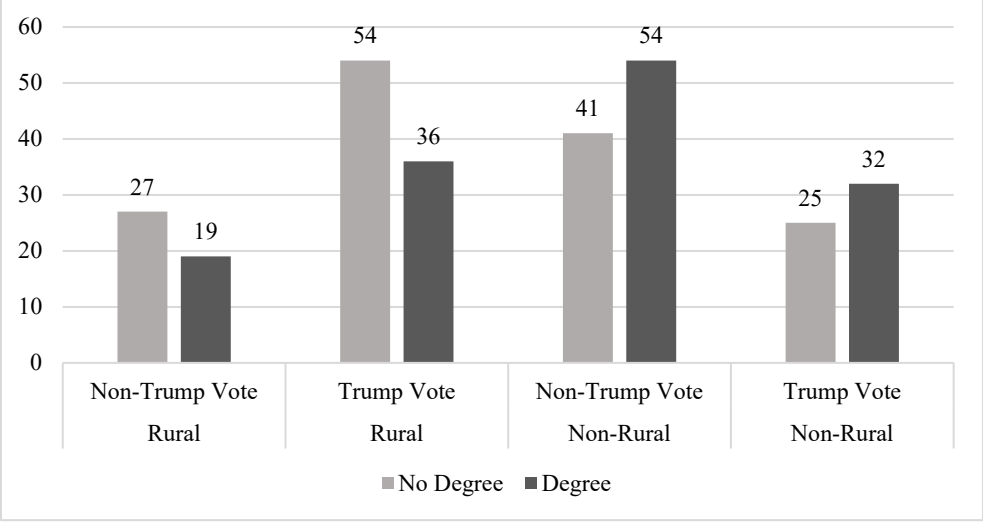
Given the commentary surrounding the 2016 presidential election, the plots in Figure 4.1 seem highly counterintuitive, and even suspect. To help clarify this matter, I include frequency tables of college degree attainment and Trump vote in 2016 by rural and non-rural respondent (Figure 4.2). Certainly, as expected, when comparing rural Trump voters to non-rural voters generally, the former group is disproportionately comprised of non-degree voters (compared to non-rural voters, who are about equal degree-holders versus not degree holders). What is more relevant, however, is a comparison of *rural non-Trump rural voters to rural Trump voters.* In both cases, the percentage of Trump and non-Trump voters in rural areas who did not have a college degree was 59% (38/(38+26) = 59% and 55/(55+38) = 59%). This suggests that the narrative of the non-college educated rural voter going for Trump is misleading; the non-college educated rural voter went for various candidates nearly equally.

Figure 4.2: *Respondent frequency of Trump and non-Trump voters by rural residency (subjective) and college degree attainment, using Lucid data (all respondents).*



Perhaps, however, that this is an artifact of race as well; non-college educated voters who supported candidates other than Trump may be disproportionately rural people of color. Therefore, I also look at the same results from Figure 4.2 but for white respondents only (Figure 4.3). Again, degree holders in non-rural areas were more likely to vote for Trump than non-degree holders (though degree holders in non-rural areas were more likely to vote for anyone compared to non-degree holders). Remarkably, just like in Figure 4.2, both rural non-Trump voters and rural Trump voters were again approximately 59% (27/(27+19)) and 60% (54/(54+36) non-degree holders (for white respondents). Such a finding suggests that education level does not adequately explain the urban-rural divide when considering Trump support in 2016; more rural respondents voted for Trump than non-rural respondents, but the proportion of rural respondents who were not college educated did not differ between Trump voters and non-Trump voters (for whites and for all races).[4]

Figure 4.3: *Respondent frequency of Trump and non-Trump voters by rural residency (subjective) and college degree attainment, using Lucid data (only white respondents).*



[4] A similar tendency can be found in other data used for this chapter, including CCES white voters; see appendix.

Further testing the assumptions of rural identity hinging on working class membership – particularly white working-class membership – I repeat the analyses in Table 4.1, but replacing rural residency with rural social identity strength. Table 4.2 below suggests that rural social identity strength is either once again not contingent on class indicators when predicting Trump support. Or, in the case of college education, white voters with a college degree were *even more* likely to have voted for Trump compared to those without a college degree. Further, although the interactions between rural social identity strength and class are not significant, they are nearly all above one, indicating that stronger rural identity strength corresponds to greater likelihood of Trump support for those higher in class. The positive interaction in Model 3 can be found in Figure 4.4 below.

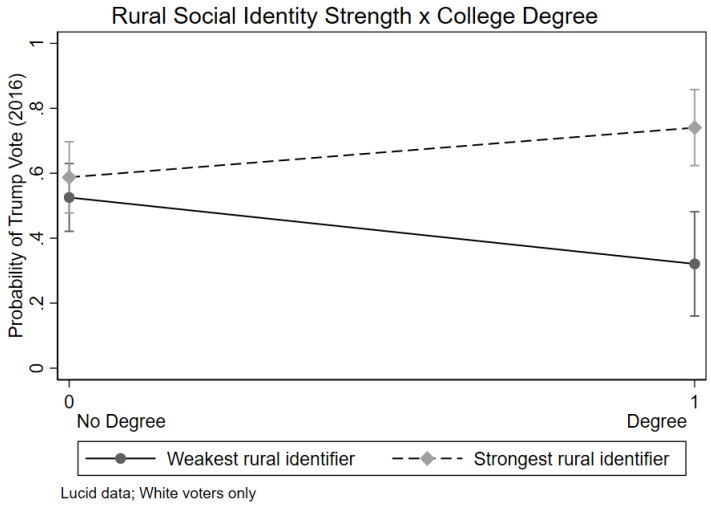
Table 4.2: *Predicting self-reported vote for Trump in 2016, for all voters and white voters, with interactions between rural social identity strength and class variables.*

	(1) Trump Vote 2016 *All Voters*	(2) Trump Vote 2016 *All Voters*	(3) Trump Vote 2016 *White Voters*	(4) Trump Vote 2016 *All Voters*	(5) Trump Vote 2016 *All Voters*	(6) Trump Vote 2016 *White Voters*	(7) Trump Vote 2016 *All Voters*	(8) Trump Vote 2016 *All Voters*	(9) Trump Vote 2016 *White Voters*
Education Level	-	-	-	-	0.71	1.27	*0.08+*	0.08	0.09
					(0.70)	(1.33)	*(0.12)*	(0.17)	(0.22)
Income Level	-	1.15	0.70	2.45	0.09	0.08	-	1.29	0.80
		(0.96)	(0.69)	(2.99)	(0.16)	(0.14)		(1.05)	(0.76)
College Degree	**0.21***	**0.14***	**0.13***	-	-	-	-	-	-
	(0.14)	**(0.13)**	**(0.13)**						
Party ID	-	**335.38*** **	**352.18*** **	**-**	**362.84*** **	**336.90*** **	**-**	**323.45*** **	**332.44*** **
		(226.70)	**(292.58)**		**(258.58)**	**(285.40)**		**(227.06)**	**(290.11)**
Symbolic Ideology	-	2.25	3.79	-	2.03	3.11	-	2.21	3.50
		(2.14)	(4.10)		(2.04)	(3.56)		(2.14)	(3.87)
Racial Resentment	-	*5.54+*	4.41	-	**6.87***	5.51	-	*5.89+*	4.64
		(5.05)	(4.81)		**(6.47)**	(6.00)		*(5.41)*	(5.03)
Hispanic	-	1.28	1.04	-	1.24	1.05	-	1.32	1.09

		(0.89)	(0.80)		(0.84)	(0.79)		(0.91)	(0.84)
Female	-	0.84	0.88	-	0.77	0.84	-	0.84	0.89
		(0.40)	(0.42)		(0.35)	(0.39)		(0.41)	(0.46)
Rural Social ID Str.	**2.98***	2.05	2.08	**8.47***	0.55	0.81	0.96	0.66	0.56
	(1.61)	(2.14)	(2.45)	**(7.80)**	(0.90)	(1.49)	(1.20)	(1.73)	(1.61)
Political Interest	-	**8.94***	**11.21***	-	**9.07***	**10.96***	-	**9.57***	**11.83***
		(8.66)	**(11.94)**		**(8.71)**	**(11.57)**		**(9.30)**	**(12.55)**
Age	-	0.84	0.76	-	0.73	0.65	-	0.79	0.68
		(0.86)	(0.85)		(0.70)	(0.69)		(0.82)	(0.78)
Rural Identity X College	*5.61+*	*20.10+*	**46.20***	-	-	-	-	-	-
	(5.65)	*(34.41)*	**(84.66)**						
Rural Identity X Income	-	-	-	0.43	134.36	109.23	-	-	-
				(0.77)	(405.11)	(347.39)			
Rural Identity X Education	-	-	-	-	-	-	22.10	60.28	143.99
							(46.71)	(256.70)	(650.41)
Pseudo r2	0.05	0.60	0.59	0.04	0.60	0.58	0.04	0.59	0.58
N	358.00	333.00	278.00	334.00	333.00	278.00	358.00	333.00	278.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models, odds ratios shown, in Models 1-3; Models 4-6 shows results from OLS regressions. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (Summer 2019) data used.

Figure 4.4: *Marginal effects plots for the interaction between rural social identity strength and college degree for white voters.*



Finally, the tendency seen in Figure 4.4 is *even more pronounced* when changing the dependent variable to trust in Trump. As noted above, this variable can be found in a Lucid data set from May 2019, rather than the Lucid data collected in August 2019 that is used in Tables 4.1 and 3.2. These models, found in Table 4.3, look at rural and white respondents only. The marginal effects plots for the interactions in Models 1-3 can be found in Figure 4.5 below.

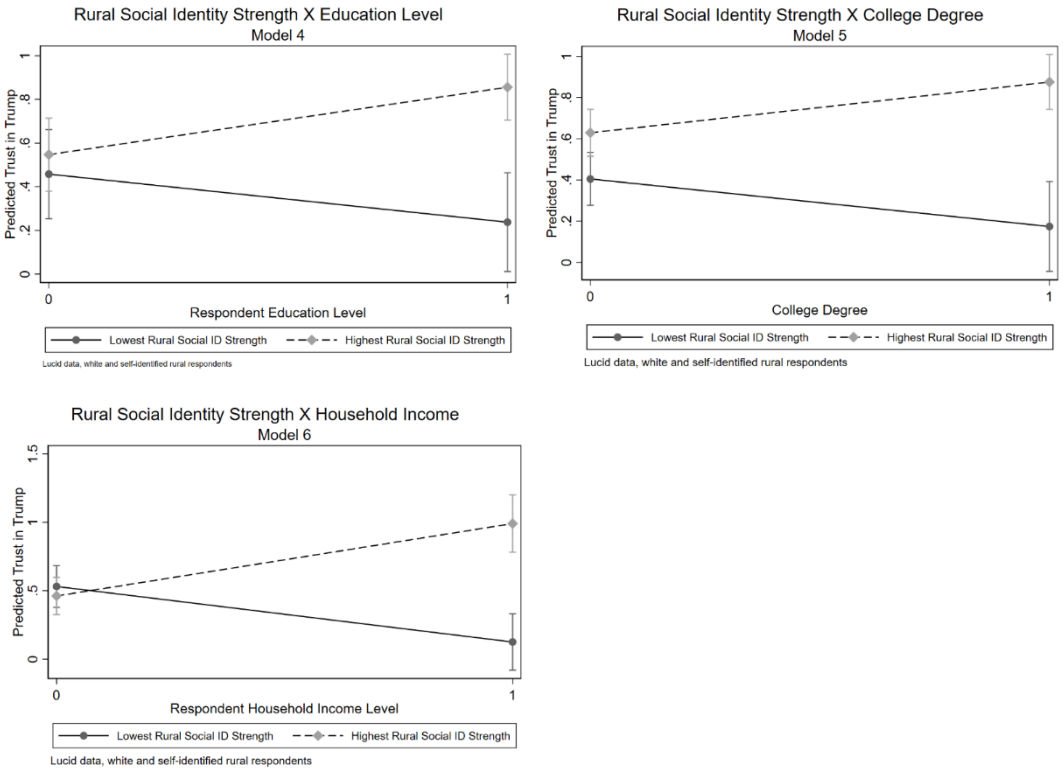
Table 4.3: *Predicting self-reported Trust in Trump, for only white self-identified rural respondents, with interactions between rural social identity and class variables.*

	(1) Trust in Trump *Rural and White Respondents*	(2) Trust in Trump *Rural and White Respondents*	(3) Trust in Trump *Rural and White Respondents*
Education Level	0.84	-	1.04
	(0.15)		(0.09)
College	-	*0.83+*	-
		(0.09)	
Household Income	1.15	1.14	**0.63****
	(0.11)	(0.11)	**(0.09)**
Party ID	**1.69*****	**1.66*****	**1.68*****
	(0.15)	**(0.14)**	**(0.14)**
Racial Resentment	**1.40***	**1.49****	**1.45****
	(0.18)	**(0.19)**	**(0.18)**
Age	1.06	1.01	0.98
	(0.12)	(0.11)	(0.10)
Ideology	1.01	1.01	1.02
	(0.01)	(0.02)	(0.02)
Hispanic	0.99	0.98	0.98
	(0.01)	(0.01)	(0.01)
Male	**0.90***	*0.91+*	**0.91***
	(0.05)	*(0.05)*	**(0.05)**
Rural Social ID Strength	1.10	*1.24+*	0.86
	(0.18)	*(0.16)*	(0.11)
Rural ID Str. X Education	*1.62+*	-	-
	(0.41)		
Rural ID Str. X College Degree	-	**1.53***	-
		(0.28)	
Rural ID Str. X Income	-	-	**2.82*****
			(0.75)
r2	0.26	0.25	0.25
N	168.00	170.00	168.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models, odds ratios shown, in Models 1-3; Models 4-6 shows results from OLS regressions. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at

0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (May 2019) data used.

Figure 4.5: *Marginal effects plots for the models in Table 4.3 showing Trust in Trump, for only white self-identified rural respondents, with interactions between rural social identity and class variables.*



In almost every case, when moving beyond Trump vote choice into general support for Trump among voters and non-voters, white rural residents who are higher in rural social identity strength are more trusting of Trump if they are more educated or if they make more money. This is in sharp contrast to expectations set up in the previous literature on rural social identity and support for outsider Republican candidates. Notably,

the relationship between rural residency, class, and Trump support is not significant with partisan identity as the dependent variable; Tables A4.3 and A4.4 in the chapter appendix contain analyses similar to those found in Tables 4.1, 4.2, and 4.3 but with party identity as the dependent variable. This potentially suggests some sort of effect for rural identity strength that is Trump-specific.

To verify that these effects are not due to quirks of this particular sample, I perform the same analysis using the 2019 ANES pilot data. In this data set, rural residency is self-identified, with rural meaning a small town or rural resident, and non-rural meaning a suburban or urban resident. Then, I interact this variable with respondent household income level, respondent education level, and college degree attainment (Table 4.4). These models only include white voters. I repeat each analysis with and without control variables, including party identity strength, ideology, age, gender, and race. The outcome variable is again a binary Trump vote in 2016, with one indicating support for Trump.

Table 4.4: *Predicting Trump vote in 2016 using ANES data by rural identification and class measures (income and education level).*

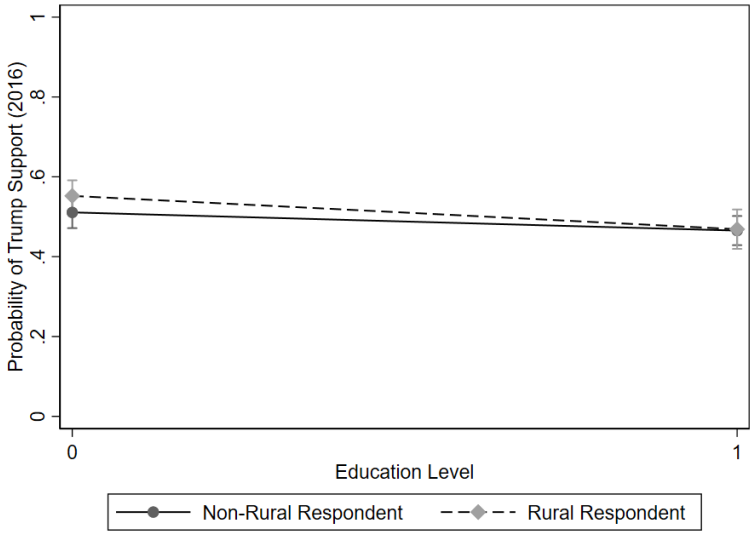
	(1) Trump Vote 2016 *White Voters*	(2) Trump Vote 2016 *White Voters*	(3) Trump Vote 2016 *White Voters*	(4) Trump Vote 2016 *White Voters*	(5) Trump Vote 2016 *White Voters*	(6) Trump Vote 2016 *White Voters*
Rural Res.	**1.42*** **	1.40	**1.52***	1.74	1.38	1.86
	(0.19)	(0.33)	**(0.35)**	(0.65)	(0.32)	(0.72)
Degree (BA/BS)	**0.42*** **	**0.57** **	-	-	-	-
	(0.06)	**(0.15)**				
Income	-	1.07	-	0.97	0.85	1.40
		(0.52)		(0.47)	(0.29)	(0.77)
Education Level	-	-	**0.29*** **	0.56	-	**0.45** **
			(0.07)	(0.24)		**(0.15)**
Age	-	**0.30** **	**-**	**0.29** **	**-**	**0.29** **
		(0.15)		**(0.14)**		**(0.15)**
Female	-	0.84	-	0.84	-	0.84
		(0.16)		(0.16)		(0.16)
Party ID	-	**401.00*** **	**-**	**406.60*** **	**-**	**406.22*** **

		(158.22)		**(163.28)**		**(163.84)**
Racial Resentment	-	**0.02*** **	**-**	**0.02*** **	**-**	**0.02*** **
		(0.01)		**(0.01)**		**(0.01)**
Political Interest	-	1.07	-	1.05	-	1.06
		(0.43)		(0.42)		(0.42)
Rural X Degree	1.23	0.87	-	-	-	-
	(0.27)	(0.37)				
Rural X Education	-	-	1.00	0.60	-	-
			(0.37)	(0.38)		
Rural X Income	-	-	-	-	1.68	0.41
					(0.87)	(0.38)
Pseudo r2	0.04	0.63	0.04	0.63	0.01	0.63
N	1751.00	1499.00	1751.00	1499.00	1530.00	1499.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models, shown with odds ratio coefficients for ease of interpretation. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Models 3 and 4 show respondents who said they either currently live in a rural area or small town, or that they grew up in a rural area or small town.

The results in Table 4.4 somewhat echo the corresponding findings in Tables 4.1 – 4.3 above using the Lucid data. The interactions between rural residency and education level or college degree, as well as between rural residency and income level, are not statistically significant for white respondents. This is true regardless of whether control variables are or are not included in the models. The marginal effects plots of these insignificant interactions show that educational attainment, for example, is nearly flat in predicting support for Trump among rural and non-rural respondents (Figure 4.6 below). It does appear that higher educational attainment does *slightly* decrease the likelihood of Trump support for rural residents; however, this is a very substantively small relationship. If I replace rural residency with rural identity importance, there is a similar lack of statistically significant relationships when interacting with class variables to predict Trump support in 2016 (see Table A4.5 in the appendix for details).

Figure 4.6: *Marginal effects predicting the probability of Trump vote by rural residency interacted with education level. Interaction from Model 4 in Table 4.4; interaction not statistically significant. White respondents only. ANES (2019) pilot data.*



Finally, the CCES data show that higher levels of socioeconomic status indicators correspond to greater likelihood of Trump vote in 2016 for rural respondents (especially for rural white respondents), compared to urban and suburban respondents (Table 4.5). In every single case, the interaction terms are either positive or not statistically significant. Figure 4.7 below shows these interactions in more detail.

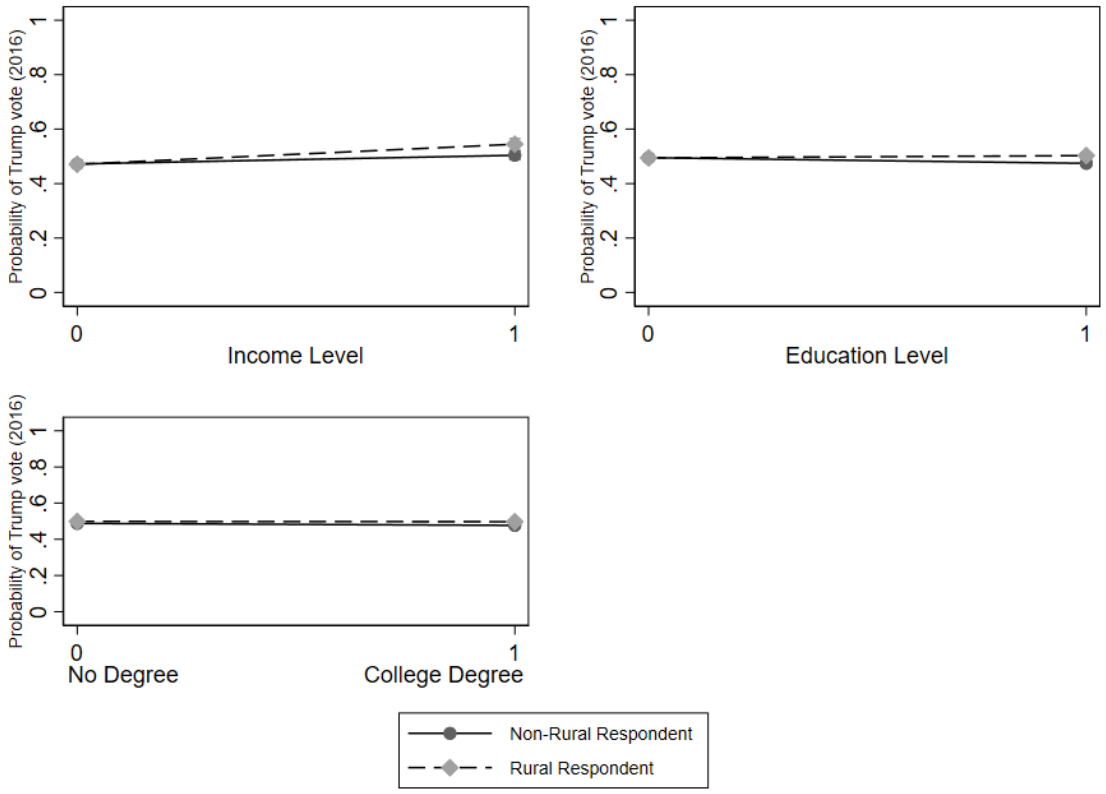
Table 4.5: *Predicting Trump vote in 2016 using CCES data by rural residency (subjective) and class measures (income, education level, and college degree attainment).*

	(1) Trump Vote 2016 *All Voters*	(2) Trump Vote 2016 *White Voters*	(3) Trump Vote 2016 *White Voters*	(4) Trump Vote 2016 *All Voters*	(5) Trump Vote 2016 *White Voters*	(6) Trump Vote 2016 *White Voters*	(7) Trump Vote 2016 *All Voters*	(8) Trump Vote 2016 *White Voters*	(9) Trump Vote 2016 *White Voters*
Rural resident	**2.04***	**1.54***	**0.99**	**2.18***	**1.47***	0.99	**2.15***	**1.62***	**1.14***
	(0.11)	**(0.09)**	**(0.10)**	**(0.13)**	**(0.09)**	(0.11)	**(0.08)**	**(0.06)**	**(0.08)**
Degree (BA/BS)	-	-	-	-	-	-	**0.76***	**0.54***	0.87
							(0.03)	**(0.02)**	(0.06)
Education Level	-	-	0.90	**0.65***	**0.34***	**0.78***	-	-	-
			(0.09)	**(0.04)**	**(0.02)**	**(0.09)**			

Family Income Level	**1.88***	1.01	**1.48***	**-**	**-**	**1.84*****	**-**	**-**	**1.85*****
	(0.14)	(0.08)	**(0.24)**			**(0.25)**			**(0.25)**
Party ID	-	-	**132.19*****	**-**	**-**	**131.87*****	**-**	**-**	**131.93*****
			(13.56)			**(13.54)**			**(13.54)**
Symbolic Ideology	-	-	1.32***	-	-	1.32***	-	-	1.32***
			(0.04)			(0.04)			(0.04)
Racial Resentment	-	-	**43.85*****	**-**	**-**	**43.78*****	**-**	**-**	**43.58*****
			(4.97)			**(4.96)**			**(4.94)**
Gender = Female	-	-	**0.87****	**-**	**-**	**0.87****	**-**	**-**	**0.87****
			(0.04)			**(0.04)**			**(0.04)**
Age	-	-	**0.10*****	**-**	**-**	**0.10*****	**-**	**-**	**0.10*****
			(0.01)			**(0.01)**			**(0.01)**
Hispanic	-	-	0.81	-	-	0.81	-	-	0.80
			(0.23)			(0.23)			(0.23)
Rural X Income	**1.40***	**1.74*****	**1.73***	-	-	-	-	-	-
	(0.19)	**(0.24)**	**(0.43)**						
Rural X Education	-	-	-	0.96	**1.31****	**1.43***	-	-	-
				(0.09)	**(0.12)**	**(0.25)**			
Rural X Degree	-	-	-	-	-	-	0.98	**1.14***	1.13
							(0.06)	**(0.07)**	(0.12)
N	35754.00	28178.00	26206.00	39677.00	31414.00	26206.00	39677.00	31414.00	26206.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models, shown with odds ratio coefficients for ease of interpretation. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks.

Figure 4.7: *Marginal effects predicting the probability of Trump vote by rural residency interacted with income level, education level, and degree attainment.*



Note: *Interactions from Models 3, 6, and 9 in Table 4.5; income and education level interactions significant, degree attainment not significant. White respondents only. CCES (2018) data.*

Figure 4.7 indicates further that as income and education levels increase, rural white voters are more likely to have voted for Trump compared to someone else. That said, the effects are substantively quite small. For example, for the richest white respondents, rural residents are less than 0.05 more likely to vote for Trump than non-rural residents. However, the richest white rural residents are around 0.10 more likely to support Trump compared to the poorest white rural residents. Such findings echo those from the Lucid data above; indicators of class are either unrelated to Trump support for

white rural respondents, or, richer rural white respondents are more likely to have supported Trump compared to poorer white respondents.

In addition, and also like the results from the Lucid data, the interactions between rural and class variables for white respondents using the CCES data are not statistically or substantively significant when predicting party identity strength (and when including control variables) (Table 4.6, Models 3, 6, and 9). When the models are only bivariate models, these interactions are statistically significant. With education level and degree attainment, the lowest values tend to predict a value of around 0.55 on the party identity scale while the highest values predict a value of a little less than 0.65 on the party identity scale for white rural respondents. However, since this effect goes away when including control variables, this relationship is likely accounted for by something other than the class variables. Conversely, predicted party identity values for the poorest white rural respondents versus the richest white rural respondents are 0.58 and 0.62, respectively. Though this is a statistically significant interaction, it is substantively quite small. See Figure 4.8 below for a visualization.

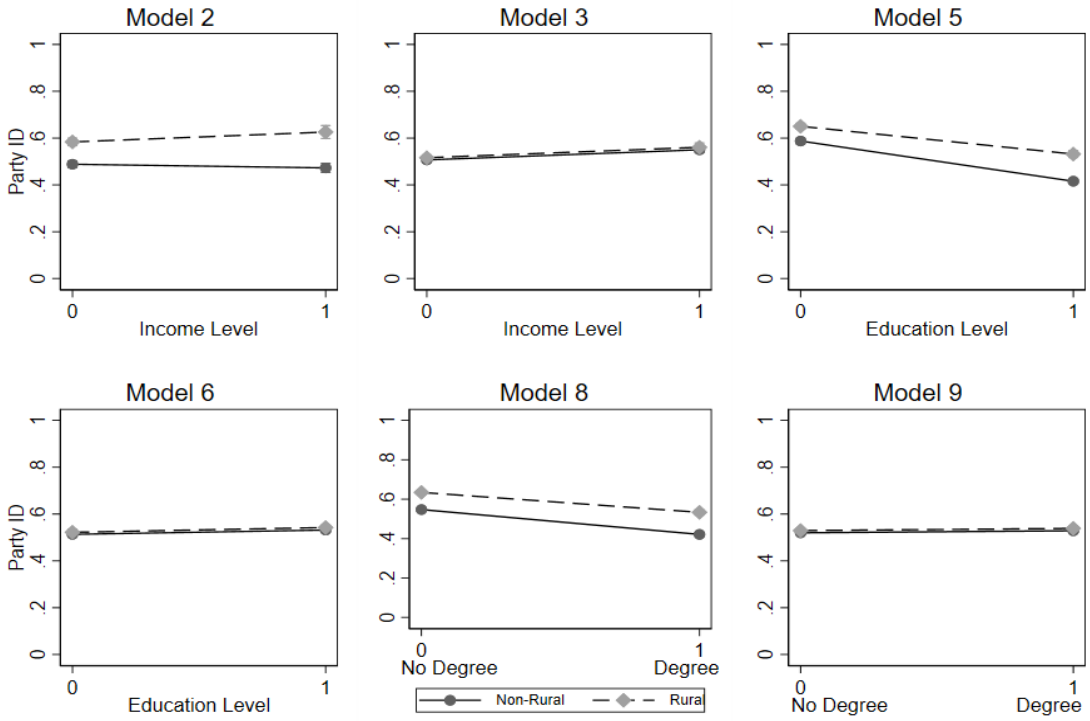
Table 4.6: *Predicting partisan identity using CCES data by rural residency (subjective) and class measures (income, education level, and college degree attainment).*

	(1) Party ID *All Voters*	(2) Party ID *White Voters*	(3) Party ID *White Voters*	(4) Party ID *All Voters*	(5) Party ID *White Voters*	(6) Party ID *White Voters*	(7) Party ID *All Voters*	(8) Party ID *White Voters*	(9) Party ID *White Voters*
Rural resident	**0.14*** **	**0.10*** **	0.01	**0.12*** **	**0.06*** **	0.01	**0.14*** **	**0.09*** **	0.01
	(0.01)	**(0.01)**	(0.01)	**(0.01)**	**(0.01)**	(0.01)	**(0.01)**	**(0.01)**	(0.01)
Degree (BA/BS)	-	-	-	-	-	-	-	-	0.01
							0.06* **	**0.13*** **	
							(0.01)	**(0.01)**	(0.00)
Education Level	-	-	**0.02** **	-	-	**0.02***	-	-	-
				0.07* **	**0.17*** **				
			(0.01)	**(0.01)**	**(0.01)**	**(0.01)**			
Family Income Level	**0.10*** **	-0.02	**0.04*** **	-	-	**0.04*** **	-	-	**0.05*** **
	(0.01)	(0.02)	**(0.01)**			**(0.01)**			**(0.01)**

Symbolic Ideology	-	-	**0.15*** **	-	-	**0.15*** **	-	-	**0.15*** **
			(0.00)			**(0.00)**			**(0.00)**
Racial Resentment	-	-	**0.38*** **	-	-	**0.38*** **	-	-	**0.38*** **
			(0.01)			**(0.01)**			**(0.01)**
Gender = Female	-	-	**-0.01*** **	-	-	**-0.01*** **	-	-	**-0.01*** **
			(0.00)			**(0.00)**			**(0.00)**
Age	-	-	**0.06*** **	-	-	**0.06*** **	-	-	**0.06*** **
			(0.01)			**(0.01)**			**(0.01)**
Hispanic	-	-	**-0.03***	-	-	**-0.03***	-	-	**-0.03***
			(0.02)			**(0.02)**			**(0.02)**
Rural X Income	0.02	**0.06***	0.00	-	-	-	-	-	-
	(0.02)	**(0.03)**	(0.02)						
Rural X Education	-	-	-	0.00	**0.05*** **	0.00	-	-	-
				(0.02)	**(0.02)**	(0.01)			
Rural X Degree	-	-	-	-	-	-	-0.01	**0.03***	0.00
							(0.01)	**(0.01)**	(0.01)
Constant	**0.37*** **	**0.49*** **	**-0.22*** **	**0.46*** **	**0.59*** **	**-0.22*** **	**0.45*** **	**0.55*** **	**-0.22*** **
	(0.01)	**(0.01)**	**(0.01)**	**(0.01)**	**(0.01)**	**(0.01)**	**(0.00)**	**(0.00)**	**(0.01)**
r2	0.03	0.02	0.59	0.03	0.04	0.59	0.04	0.04	0.59
N	35726.00	28159.00	26206.00	59383.00	44548.00	26206.00	39644.00	31392.00	26206.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of OLS regression models. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks.

Figure 4.8: *Marginal effects predicting party identity by rural residency interacted with income level, education level, and degree attainment.*



Note: *Interactions from Models 3,4, 5, 6, 8, and 9 in Table 4.6; Model 2, 5, and 8 interactions are significant and Model 3, 6, 9 interactions are not significant. White respondents only. CCES (2018) data.*

Again, contrary to expectations, rural residency and rural identity do not intersect with class in the expected manner when understanding Trump support or partisanship. In fact, if anything, rural residents who are middle to upper class and who more strongly identify with being rural were more likely to vote for Trump compared to everyone else. Similarly, rural white working-class voters with strong rural identification were not more likely to vote for Trump on the whole, or to be stronger-identified Republicans. The discrepancy in rural social identity strength between ANES and Lucid could be due to several factors, including differences in sample characteristics, misreporting of voting in the 2016 election, and a single measure for rural social identity strength in ANES versus a multi-dimensional measure in the Lucid data. In any case, the evidence still stands that

rural identity and residency correspond to Trump support without an emphasis on the working class. Thus far, however, I have only used objective measures of class identification. In the next subsection, I repeat these analyses but using self-identified class placement.

What About Subjective Working-Class Identification?

As previously mentioned, socioeconomic class can be difficult to capture using objective quantitative measures, as it is often thought of as a subjective or cultural identity instead (Walsh et al. 2004). Therefore, I repeat the analyses above using data from the Lucid study fielded in August 2019 that contains a subjective class membership question. (*N=819*). Figure 4.9 below shows the distribution of class membership by different measures of rural and non-rural, for white respondents only. As is expected, non-rural and lower rural identifiers have proportionately larger segments of middle class identifiers or higher. Conversely, more rural or rural identifying respondents say they are poor or working class, though most still consider themselves middle class.

Figure 4.9: *Respondent distribution of various rural/non-rural measures, by subjective class membership, using only white respondents.*

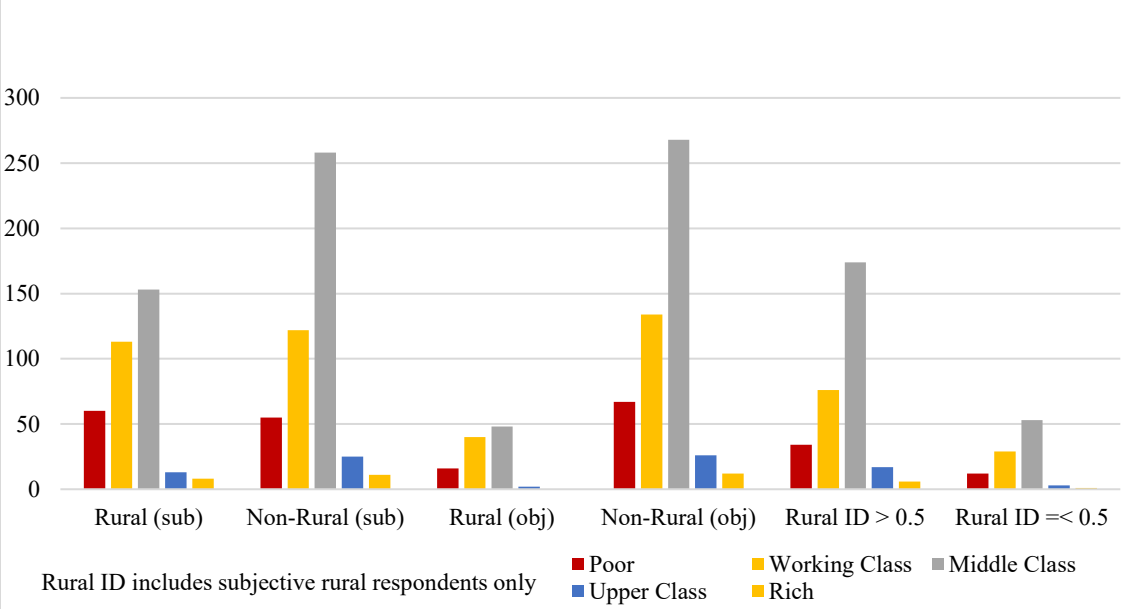


Table 4.7 below displays results of logit regressions using the interaction between rural residency (or rural social identity) and this class variable to predict Trump support in 2016. For white rural respondents (subjectively defined), the likelihood of voting for Trump did not vary by class membership; this likelihood was approximately the same for those who identified as poor, working class, or middle class. The same is true for rural social identity strength; white voters were no more likely to vote for Trump if they were strong rural social identifiers who were working class than if they were middle class, upper class, or rich.

Table 4.7 *Predicting Trump vote (2016) by rural residency (or rural identity strength) and self-identified class membership, for white respondents only.*

	(1) Trump Vote = 1 *White Voters*	(2) Trump Vote = 1 *White Voters*	(3) Trump Vote = 1 *White Voters*	(4) Trump Vote = 1 *White Voters*
Party ID	-	**99.23*** **	-	**302.34*** **
		(60.48)		**(273.98)**
Racial Resentment	-	**10.25****	-	*5.35+*
		(9.05)		*(5.24)*
Hispanic	-	1.06	-	0.96
		(0.56)		(0.79)
Female	-	0.89	-	0.78
		(0.32)		(0.38)
Political Interest	-	3.30	-	**8.04***
		(2.75)		**(8.21)**
Age	-	0.39	-	0.87
		(0.34)		(0.92)
Symbolic Ideology	-	**13.25****	-	3.11
		(11.09)		(3.70)
Rural Social ID Str.	-	-	4.29	3.20
			(5.72)	(8.56)
Rural Resident	2.40	1.88	-	-
	(1.56)	(2.77)		
Working Class	1.84	0.97	1.81	1.69
	(1.05)	(1.16)	(1.83)	(3.12)
Middle Class	2.08	1.30	1.35	0.49
	(1.05)	(1.50)	(1.26)	(0.73)
Upper Class	2.54	1.39	2.57	0.10
	(1.77)	(1.77)	(4.29)	(0.22)
Rich	**19.67***	19.70	8.81	*35.22+*
	(24.02)	(53.36)	(11.68)	*(71.50)*
Rural X Working Class	0.99	1.03	-	-
	(0.78)	(1.71)		

Rural X Middle Class	0.92	0.84	-	-
	(0.65)	(1.30)		
Rural X Upper Class	0.84	2.18	-	-
	(0.99)	(4.50)		
Rural X Rich	0.58	1.97	-	-
	(1.00)	(5.83)		
Rural ID Str. X Working Class	-	-	0.77	0.17
			(1.22)	(0.58)
Rural ID Str X Middle Class	-	-	1.65	3.37
			(2.49)	(9.95)
Rural ID Str X Upper Class	-	-	2.22	194.06
			(5.56)	(834.71)
Rural ID Str. X Rich	-	-	1.00	1.00
			(.)	(.)
N	474.00	472.00	290.00	289.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models; odds ratios shown. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (August 2019) data used. Zero for the class variable is Poor. August 2019 Lucid (Study 3) data.

Figure 4.10 *Predicted marginal effects of Trump vote (2016) by rural residency (or rural identity strength) and self-identified class membership, for white respondents only.*

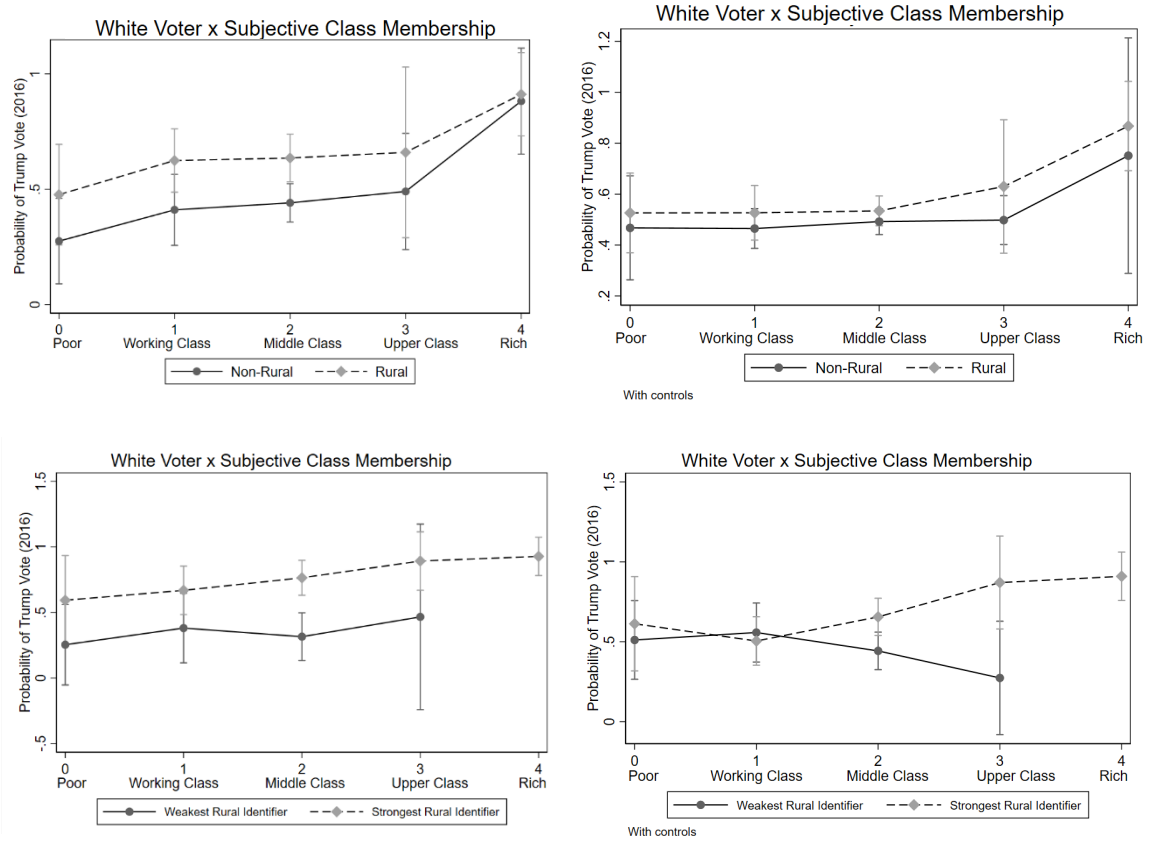


Figure 4.10 shows that, although these interaction terms are not significant, the trend for stronger rural identifiers is that as subjective class increases, the likelihood of Trump support among white voters increases. This is true with controls (right-hand side graphs) and without controls (left-hand side graphs). In many cases, however, the relationship between class and Trump support for white voters follows the same trajectory regardless of rurality especially, and regardless of rural social identity strength to a lesser extent.

In addition, the chapter appendix contains these analyses, but replacing Trump support with the seven-point party identity scale as the dependent variable (Table A4.6). Once again, in most cases the interactions are not significant with some exceptions, such as the interaction between rural identity strength and subjective class identity. This result, shown in Figure A4.6, indicates that rich white rural residents who are strong rural identifiers tend to be less Republican than their weaker rural identifying counterparts. It is unclear why this effect is opposite to the tendency in Figure 4.9 above, however, the tendency is driven largely by the rich, which is a fairly small group, which makes the error margins quite large and the estimate uncertain. Poor, working class, and middle class white rural residents tend to all have the same relationship between rural identity strength and party identity strength.

These findings are entirely in line with the above results and from findings from previous chapters: there is nothing special about white working-class membership for rural residents or rural social identifiers when examining candidate support. If anything, rural social identifiers in the white working class were less likely to support Trump compared to middle class or upper class/rich white rural social identifiers. In the next

section, I explore how economic indicators predict Trump support at the county level for rural versus non-rural counties.

Part II. County-Level Economic Indicators, Rurality, and Republican Presidential Support

Methods and Analytical Strategy

As outlined at the beginning of the chapter, I also look at economic variables and vote share at the county level. To do so, I use OLS regressions with various county-level measures. The data set includes 2,820 counties out of 3,007 total counties in the United States (93.7% of all counties).

I use the RUCC codes to measure the rural-urban continuum; any RUCC code above 3 is considered "non-metro", with values one through three considered "metro." The dependent variable used here is the change in county vote share going to the Republican candidate between 2008 (John McCain) and 2016 (Donald Trump). To create this variable, I subtract the county percent of the vote that went to Donald Trump minus the county percent of the vote that went to John McCain. Thus, a county where 100% of the vote went to McCain and 0% went to Trump would get a score of -1.0, while a county where 100% of the vote went to Trump and 0% of the vote went to McCain would have a score of 1.0; counties where the percent of the votes for Trump and McCain are the exact same would have a score of 0.0. This variable ranges from -0.28 to 0.36. These data were taken from the MIT Election Data and Science Lab (MIT Election Data and Science Lab 2018).

Regarding independent variables, local economic decline encompasses factors such as median county income change over time (since the Great Recession), reliance on commodities or manufacturing (which have been harder hit since the Great Recession),

and unemployment level change. Median county income data is taken from the U.S. Census Bureau from 2010 and 2016 for all counties; the change in median county income variable was created by subtracting the 2016 median household income value for each county from the 2010 median household income value for each county. This variable was then standardized to range from zero to one. Commodity reliance was codified using the 2004 United States Department of Agriculture (USDA) ERS Atlas of Rural and Small-Town America data set (USDA ERS 2018). This data set contains binary variables for each county specifying whether that county is reliant on either mining or farming. In addition, this same dataset includes a dummy variable indicating whether a county is reliant on manufacturing. Finally, the county unemployment level change data was also taken from this data source by subtracting the binary low employment county designation in 2004 from the same variable in 2014.

In addition, social decline is a similar factor to the local economic decline thesis, and is measured using county level health factors and total population increase or decrease over time. The latter data was taken from the 2000 and 2010 U.S. Census data; I created population change over time by subtracting the 2000 total county population from the 2010 total county population. The former was taken from the Robert Wood Johnson Foundation's County Health Rankings data. [5] This metric is based on several factors relating to quality of life and length of life in that county. From these factors, each county gets a score, and each county is given a rank based on how this score relates to the scores of other counties. Here, higher values indicate better ranked, and hence healthier, counties. Finally, I also include control variables that could potentially influence

[5] Available at: https://www.countyhealthrankings.org/

presidential vote, such as religious institutions per capita, median age, education level, and percent population Hispanic or Black. All of these values were taken from 2010 U.S. Census data, except for religious institutions per capita. This was taken from the 2009 Penn State social capital scores by county.

Results

The results of the county-level analysis predicting the change in county percent of vote share going to the Republican presidential candidate between 2008 and 2016 can be found in Table 4.8. Looking at Models 1 and 2, it is notable that all the independent variables predict changes in vote share in similar ways for metro versus non-metro counties, with one exception: the change in median income between the Great Recession between 2010 and 2016. This factor positively and strongly predicted a shift toward Trump for metro areas, while for non-metro areas, this factor was small and statistically insignificant. The only other large difference between metro and non-metro counties is the effect of population increases; in both types of counties, greater population increases translated to less support for the presidential candidate, though this effect was much more pronounced for rural counties. Notably, both of these factors relate to the thesis that economic and social decline contributed to increased Trump support. Further, mining and manufacturing dependence positively and significantly predicts a shift toward Trump. However, this effect is small compared to other factors. Reliance on agriculture or farming is not statistically significant.

Table 4.8: *Predicting the change in percent of vote share for the Republican presidential candidate between 2008 and 2016, by metro and non-metro counties.*

	(1)	(2)	(3)	(4)	(5)	(6)
	Vote Share Change	Vote Share Change	Vote Share Change	Vote Share Change	Vote Share Change	Vote Share Change
	Non-Metro	*Metro*	*All*	*All*	*All*	*All*

	Counties	*Counties*	*Counties*	*Counties*	*Counties*	*Counties*
% Co. Hispanic (2010)	**-0.22*** **	**-0.17*** **	**-0.20*** **	-	**-0.21*** **	-
	(0.01)	**(0.01)**	**(0.01)**		**(0.01)**	
% Co. Black (2010)	**-0.21*** **	**-0.16*** **	**-0.19*** **	-	**-0.20*** **	-
	(0.01)	**(0.01)**	**(0.01)**		**(0.01)**	
Median Co. Age (2010)	**0.00*** **	**0.00*** **	**0.00*** **	-	**0.00*** **	-
	(0.00)	**(0.00)**	**(0.00)**		**(0.00)**	
Total Co. Pop Increase (2000 to 2010)	**-0.22*** **	**-0.05*** **	**-0.12*** **	**-**	**-0.10*** **	**-0.22*** **
	(0.02)	**(0.02)**	**(0.01)**		**(0.02)**	**(0.02)**
Farming-Dependent Co. (2004)	0.00	-0.00	0.00	-	**0.02*** **	-
	(0.00)	(0.01)	(0.00)		**(0.00)**	
Manufacturing-Dependent Co.	**0.01*** **	**0.01*** **	**0.02*** **	-	**0.04*** **	-
	(0.00)	**(0.00)**	**(0.00)**		**(0.00)**	
Mining-Dependent Co.	**0.03*** **	**0.04*** **	**0.04*** **	-	**0.12*** **	-
	(0.00)	**(0.01)**	**(0.00)**		**(0.01)**	
Health Factors Ranking (2016)	**0.11*** **	**0.12*** **	**0.12*** **	-	**-0.21*** **	-
	(0.01)	**(0.01)**	**(0.01)**		**(0.01)**	
Change in Co. Median Income (2010 to 2016)	-0.01	**0.14*** **	**0.13*** **	**0.24*** **	**0.08*** **	**-**
	(0.02)	**(0.02)**	**(0.02)**	**(0.02)**	**(0.01)**	
Change in Co. Low Employment Level (2004 to 2014)	0.00	-0.00	0.00	-	0.00	-
	(0.00)	(0.00)	(0.00)		(0.00)	
Change in Co. Low Education Level (2004 to 2014)	0.00	-0.00	-0.00	-	-0.00	-
	(0.00)	(0.01)	(0.00)		(0.00)	
Religious Establishments in Co. Per Population (2009)	*-0.02+*	*0.04+*	-0.00	-	-0.01	-
	(0.01)	*(0.02)*	(0.01)		(0.01)	
Rural Co. = 1 (RUCC)	**-**	**-**	**0.07*** **	**0.20*** **	**0.04*** **	**0.05*** **
			(0.01)	**(0.02)**	**(0.01)**	**(0.01)**
Rural Co. X Change in	**-**	**-**	**-0.14*** **	**-0.35*** **	**-**	**-**

Median Income						
			(0.03)	**(0.03)**		
Rural Co. X Total Population Changes	-	-	-	-	**-0.22*** **	**-0.22*** **
					(0.02)	**(0.02)**
Constant	**0.10*** **	**-0.18*** **	**-0.06*** **	**-0.06*** **	**-0.04*** **	**0.12*** **
	(0.02)	**(0.02)**	**(0.01)**	**(0.01)**	**(0.01)**	**(0.01)**
r2	0.46	0.56	0.54	0.16	0.54	0.19
N	1723.00	1040.00	2763.00	2819.00	2763.00	2819.00

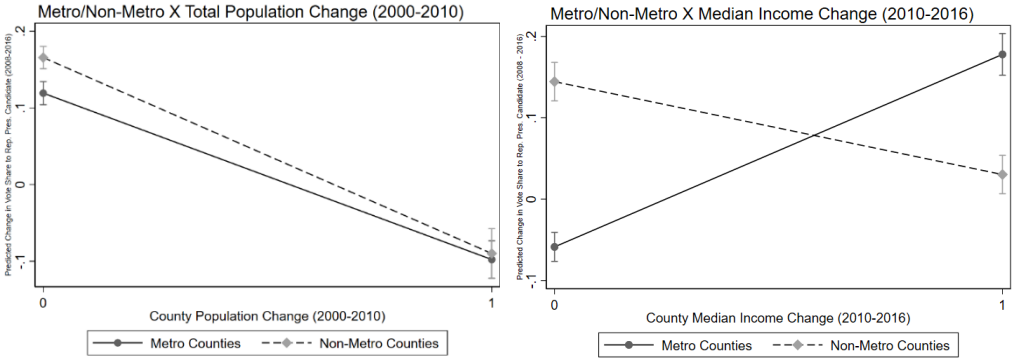
Note: + = $p < 0.10$, * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$, standard errors in parentheses. Results from OLS regression models. Results in bold show statistical significance at $p < 0.05$; results in italics show marginal statistical significance at $0.10 > p > 0.05$. All variables (independent and dependent) have been recoded from zero to one.

To further investigate the two independent variables that strongly differ in predicting the outcome variable between metro and non-metro counties, I interact the rural binary variable with these two factors (change in median income level and change in overall population over time) and create a marginal effects plot for both of these interactions. The left graph of the figure shows the effect of the change in total population by metro versus non-metro counties in predicting Republican candidate vote share change. Regardless of county type, the tendency is similar; counties with larger population increases were more likely to move away from voting Republican, while counties with larger population decreases were more likely to vote more Republican, though the latter tendency is slightly more pronounced for non-metro counties.

However, the effect of median income change on presidential vote share is the opposite for metro versus non-metro counties (Figure 4.11, right graph). For metro counties, larger gains in median income translate to *greater* support for Trump compared to McCain, while larger decreases in median income translate to less support for Trump compared to McCain. Conversely, for non-metro counties with large increases in income, shifts to Trump compared to McCain were much less pronounced compared to non-metro

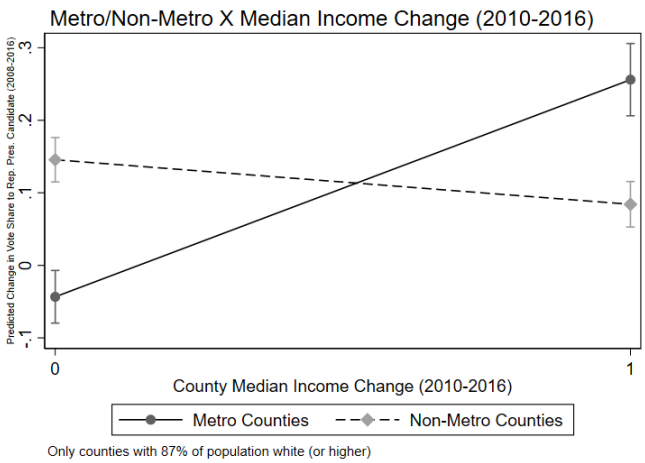
counties with large decreases in income over time. The latter finding would fit with the explanation that rural areas have undergone economic decline, driving them to Trump.

Figure 4.11: *Marginal effects plots showing predicted change in percent of vote share for the Republican presidential candidate between 2008 and 2016, by metro and non-metro counties and change in county population (left) and change in median county income (right).*



One element potentially overlooked here is the effect of race: often the decline thesis implies that the economic decline driving rural areas to Trump applies to whites or to majority white counties. Therefore, I rerun Model 4 in Table 4.8 above but only for counties with at least 87% of the population being white. This number was chosen because the median county in the United States was 87% white in 2010. The resulting marginal effects plot with the interaction shown can be found in Figure 4.12 below (regression results for the model can be found in the appendix).

Figure 4.12: *Change in percent of vote share for the Republican presidential candidate between 2008 and 2016, by metro and non-metro counties and change in median county income, among high-white population counties.*



Thus, the results for all counties and white-majority counties are similar. However, the effect of median income change is much less pronounced for non-metro counties. This suggests that the economic decline thesis may have some traction for rural white counties, but not as much as one might think. Conversely, support for Trump (compared to McCain) increased substantially, on average, for majority white metro counties doing well since the Recession but *not* for mostly white metro counties doing poorly since the Recession. This finding also suggests that the white working-class decline thesis for Trump support is potentially problematic in metro areas as well.

Part III. Individual-Level and County-Level Interactions

How, then, can we reconcile the potential differences found in Parts I and II above? Previous scholarship has suggested that many white Trump voters felt economic woes based on projections of economic decline within their own racial identity (Sides et al. 2017), and that those who were wealthier living in poorer areas were more likely to be Trump supporters (Ogorzalek et al. 2019). I argue along similar lines, but not to the same degree; as noted in the introduction, I advance the argument that rural residents and rural identifiers are using more sociotropic evaluations of economic health based on local

conditions, rather than personal conditions. This feeds into perceptions that the in-group is not doing well even if they personally are doing fine. Hits to the working class impact the community and send signals to those within the community regardless of individual class, particularly if the community is smaller (i.e., more rural) as social networks are tighter and effects are relatively easier to see.

To test these expectations, I merge the county-level data into the May 2019 Lucid data, as this survey asked rural identity strength questions to all participants and not just to self-described rural residents. Then, I perform a mixed effects multi-level logistic regression because the effect varies across individuals. The primary outcome variables are at the individual level and include Trump vote (2016) and trust in Trump, which are described in depth in Part I above. In addition, I also examine the seven-point party identity scale and symbolic ideology as dependent variables. Rural identity strength is the primary independent variable and its measurement is also described in Part I above, as well as in the previous chapter in much more depth. Respondent zip code constitutes the second level of the multilevel models. For the second level independent variable measuring local economic change, I use the change in average income between 2011 and 2016 at the zip code level.

Results: Trump Support

As noted above, Trump support is measured both by self-reported vote for Trump in the 2016 presidential election, and by how much the respondent trusts Trump. Given the above discussion, I expect the interaction between median zip code income level change between 2011 and 2016 and individual-level rural social identity strength should be negative. Table 4.9 below displays the results, while the marginal effects plot of the interaction between rural identity strength (respondent level) and local income change

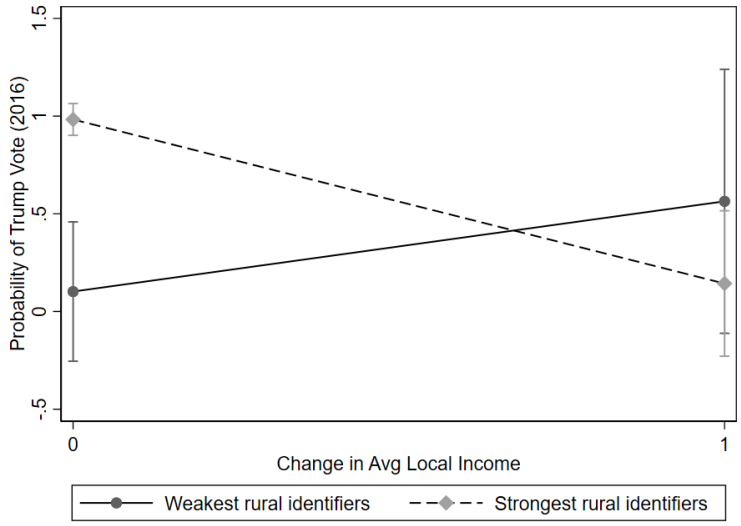
(zip code level) is shown for Trump vote (Figure 4.12). Very similar results can be found for Trust in Trump in the chapter appendix.

Table 4.9: *Mixed effects models predicting self-reported Trump vote in 2016 and Trust in Trump, with weighted data, May 2019 Lucid data.*

	(1) Trump vote 2016 (binary)	(2) Trust in Trump (continuous)
Zip code change in average income	3.41	**1.02***
	(5.24)	**(0.43)**
Rural id strength	*7.96+*	**1.60*** **
	(4.21)	**(0.27)**
Rural id X Zip income change	-11.84	**-2.45*** **
	(8.57)	**(0.58)**
Constant	-2.91	-0.26
	(2.58)	(0.21)
Level 2 effects only		
Zip code change in average income	**4.72***	**0.25***
	(6.43)	**(0.05)**
Constant	2.19	0.00
	(1.81)	(0.00)
Residual	**-**	**0.07***
		(0.01)
N	361.00	488.00

*Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Models 1 and 2 show the results of mixed effects models. Results in bold show statistical significance at p < 0.05, results in italic show statistical significance at 0.10 > p > 0.05, results in regular font show statistically insignificant results. Models do not include control variables. All variables (independent and dependent) have been recoded from zero to one.*

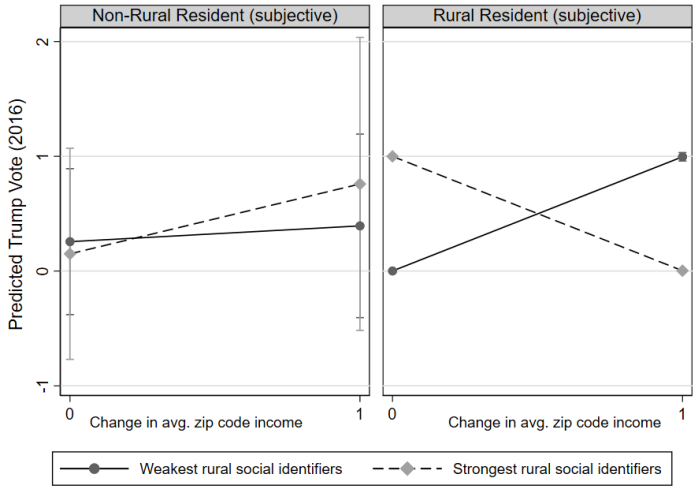
Figure 4.12: *Interaction between rural identity strength and local income change from Table 4.9, Model 1.*



The results for Trump vote in 2016 and trust in Trump are statistically insignificant, though the nature of the interaction (Figure 4.12) shows that for the weakest rural identifiers, context mattered, while for stronger rural identifiers it did not. However, stronger rural identifiers in areas generally experiencing decreased income levels predict greater trust in Trump, while those in areas of increased income levels over time predict lower trust in Trump. The results are reversed for lower rural identifiers.

That said, it is unclear whether these results are specific to rural residents. Figure 4.13 below shows a three-way interaction between local average income level change, rural social identity, and current rural versus non-rural resident (self-identified) to predict a vote for Trump in 2016. Although the three-way interaction is marginally significant at $p = 0.058$ (see chapter appendix for a table of the model results), a graph of the marginal effects shows that the effect I describe above between local economic conditions and place-based identity matters in the expected way for rural residents only. Rural residents higher in rural social identity and who live in zip codes that saw a decrease in income over time were more likely to vote for Trump. Conversely, rural residents higher in rural identity and who live in zip codes that experienced an increase in income over time were less likely to vote for Trump in 2016, compared to votes for other candidates. For non-rural residents, neither local economic conditions nor rural identity strength, when interacted, appear to predict vote choice in 2016. The difference in the interaction between rural and non-rural respondents similarly applies – and is statistically significant - when rurality is measured using objective rural designations (see chapter appendix).

Figure 4.13: *Interaction between rural identity strength, local income change, and self-identified rural residency.*



Note: See appendix for model results table, as well as for model results with objective rural codes. Three-way interaction marginally significant at p = 0.058.

Further, partisanship and symbolic ideology present similar results: for rural respondents, stronger rural identifiers living in places with the largest decrease in local income are stronger Republicans and more conservative. Conversely, rural respondents who are stronger rural identifiers living in places with the largest increase in local income over time are stronger Democrats and more liberal. For weak rural identifiers, this trend is reversed. Finally, for non-rural residents, rural identity strength and local economic context have no significant relationship. See chapter appendix for details.

Discussion and Concluding Remarks

The results from the above analyses present a consistent picture. First, stronger rural social identifiers - particularly white rural social identifiers- are more likely to have supported Trump if they were middle to upper income, relatively more educated, or saw themselves as middle class to rich, *if* there was any significant relationship between class variables and rurality on Trump support at all (which there many times there was not). Further, the relationship between Trump support and rural residency was not significantly

related to class at all for whites. Or, the interaction was statistically significant but substantively very weak. This is indicative that rurality and rural social identity does not map onto politics according to strictly white working-class sentiment.

However, rural counties that experienced economic decline since the Great Recession voting in relatively greater numbers for Trump in 2016 compared to McCain in 2008. This discrepancy can be understood to a greater degree by looking at the relationship between local economic conditions and individual-level indicators of class: rural identifiers in areas of decline are more right leaning compared to rural identifiers in areas doing well, and compared to non-rural identifiers in areas of decline. This tendency holds not only for predicting Trump support, but also for predicting party identity strength and symbolic ideology. This is somewhat surprising, as rural residency or rural identity strength do not conditionally predict partisan identity strength according to class variables like they do with predicting Trump support. Such a discrepancy perhaps suggests that *local level conditions* are a key factor in understanding the dynamic between class, rural identity, and political behavior.

Although I include party identity, this analysis mostly focuses on Trump support because previous scholars have suggested that rural identity and rural resentment helped fuel Trump's victory in the 2016 presidential election (Lunz Trujillo and Crowley n.d.; Mendelberg 2017; Munis 2020; also see Chapter 2); thus, it engages with a common dependent variable in the literature dealing with the white rural and/or working class in recent years. Future avenues in this line of research should examine other relevant outcomes.

From this chapter, it may also be the case that symbolic concerns likely matter more for rural identifiers beyond local sociotropic concerns such as economic decline detailed here, particularly given the symbolic and status-based nature of social identity (Branscombe et al. 1999; Huddy 2003). What, then, are these symbolic group-based concerns composed of for rural identifiers? In the next two chapters, I take a look at what it means to identify as rural – and how this relates to politics – apart from anti-urban sentiment and Trump support. More specifically, I examine immigrants as a major out-group, which ties not only to a mistrust of outsiders but also to the perception that immigrants are 'cutting in line' ahead of more deserving groups such as rural areas and are favored by elites. This second out-group based element – anti-elitism or anti-intellectualism – is further explored as a value or concept tied to rural identity in Chapter 6.

CHAPTER 5: Immigrants as a Rural Identity Out-Group

"You can live here all your life, and still be considered an outsider."
— E.D. Rea

In Chapters 3 and 4, I argued that rural identity appears unrelated to working class membership or personal economic concerns. Also in Chapter 3, I found that in-group positive affect was much more predictive of rural social identity strength than negative affect toward urban areas. My broader argument about the intermediate status of rural areas in the United States suggests that a rural social identity should feel negatively toward a lower-status out-group. Here, I argue that one of these out-groups are immigrants.

Previous research has found that rural residency has been linked to less permissive or more hostile immigration attitudes. For example, rural Americans are particularly supportive of restrictions on immigration (Fennelly and Federico 2008), and rural Americans hold stronger anti-immigrant sentiment compared to non-rural Americans (Garcia and Davidson 2013). Notably, Garcia and Davison also found that American identity predicted more hostile immigration attitudes for urban residents but not for rural residents, suggesting that nationalism is less of a factor for rural residents, and that the reasons for anti-immigration sentiment *vary* by population density. From these studies, however, it is unclear what these reasons are; the authors speculate that the link with population density is due to physical isolation and a lack of interaction with immigrants, as well as being older, poorer, less educated, and more politically conservative.

In his large-scale ethnographic study of rural Americans, Wuthnow (2019) notes that hostile immigration sentiment in rural areas is not only determined by political

predilections of rural Americans, but also due to social influences such as experiences and attitudes from churches, family, and friends. In addition, Wuthnow concludes that rural residents' way of life is being threatened by outside forces and perceived that the government was giving special favors to lower status groups in society, such as immigrants, who were also perceived as "working the system." This sentiment is echoed by Hochschild's ethnographic study (2018); among many of the rural residents interviewed, immigrants were perceived as cutting in line ahead of people like them, and that a "precious way of life…was being left behind." (Hoschschild 2018, pg. 259). Such resentment is echoed in Cramer's (2016) study of rural identity in Wisconsin; however, Cramer mainly talks about anti-urban sentiment without linking rural identity specifically with immigrants as an out-group.

The link between rural identity and immigration attitudes has not been quantitatively tested at the national level. In Chapter 3 (Table 3.16), I find that more restrictive immigration policy attitudes are significantly associated with rural social identity strength, but not with social or economic operational ideology, with and without controlling for party identity, symbolic ideology, racial resentment, white identity, and other demographic variables. Taken alongside the above studies, this suggests that a potential driver of the link between rurality and heightened anti-immigration sentiment is largely through resentment that the government and so-called elites favor immigrants – a characteristic of right-wing populism (Mudde and Kaltwasser 2017) where "the people" are perceived to be excluded by a corrupt and uncaring elite at the expense of a lower-status group.

Using data from a YouGov panel survey and survey experiment, in this chapter I argue that rural identity is threatened not only by elites, experts, and intellectuals - an out-group affiliated with urban areas (Lunz Trujillo 2021) or general anti-urban resentment (Cramer 2016) - but also by immigrants who are perceived threats to rural way of life. Thus, the assumed rural out-group is more complex than simple anti-urban sentiment, which has been argued by previous scholarship (Cramer 2016; Lyons and Utych 2021; Munis 2020; Parker et al. 2018).

In other words, the discussion and analyses in this chapter suggest the following contributions: 1) the relationship between rurality and anti-immigration sentiment goes beyond the demographic and political tendencies of rural areas, 2) that this relationship is in part defined by rural Americans – especially white rural Americans - as a group perceiving themselves as in the middle of a status hierarchy and forgotten or ignored by those of higher status while also seeing themselves as superior to lower-status groups, 3) that rural social identity and subjective rural identification capture politically-relevant attitudes than objective rural measures, and provide additional theoretical understanding beyond objective or categorization measures of rurality, and 4) that rural social identity is not only defined by anti-urban resentment; there are multiple relevant out-groups, including immigrants, in line with expectations from right-wing populist literature, social identity theory (SIT), and rural sociology and public health.

It is worth noting here that I am not able to reliably look at policy-based and affective immigration attitudes for whites versus non-whites here, as these results are based on a relatively small sample size. For example, there are only approximately 20 black rural respondents for each experimental condition (and in some cases less), and

only five to nine rural Hispanics per experimental condition. Since this is not a high enough number, I cannot make conclusions on non-whites regarding the experimental data, though I do take a look at racial differences in the cross-lagged models and in models using the experimental data. For the treatment effect figures below, I include separate figures in the appendix for non-whites but again there is not enough power for the results to be reliable.

In the next section, I outline in further detail why immigrants in particular are poised to be an out-group for rural Americans.

Why Anti-Immigrant Sentiment is Linked with Rural Identity

I expect anti-immigrant sentiment is particularly strong for rural identifiers for three reasons. The first is a rural-specific cultural value of a distrust of outsiders (Keller and Owens 2020; Wagonfeld 2003). Wagonfeld lists this as a rural-specific value along with "self-reliance, conservatism, … religion, work orientation, emphasis on family, individualism, and fatalism." (Wagonfeld 2003, 38). That said, Wagonfeld says that some scholarship argues that rural and urban values, while perceived to be different in society, are in reality mostly indistinct from one another. However, more recent quantitative studies have found a mistrust of outsiders to be correlated with rurality (Keller and Owens 2020). Above and beyond this, previous ethnographic studies find that suspicion of outsiders is a component features of rural identity, though this study was done in England (Bell 1992). Finally, as mentioned above, Wuthnow (2019) notes that the in-group threat of rural residents stems from a perceived invasion of (low-status) outside forces who are being favored by elites at their expense.

Why might this be the case? Rural identity by definition hinges on categorizing people according to their membership within a geographic space. In addition, the inherently small size of rural communities makes one become familiar with many individuals who live there; the smaller and more isolated the community, the more readily obvious being an outsider becomes. In contrast, one encounters many unknown people on a regular day-to-day basis in more densely populated areas. Therefore, one is less inclined to be suspicious of unknown individuals because one encounters them all the time. Finally, these tendencies compound into distrust or suspicion when paired with the perception that outsiders with power impact rural areas without the consent of those within rural areas. Rural Americans view immigrants and their associated groups (such as Hispanic, Muslim, etc.) as outsiders because their "outsiderness" is superficially perceived in several ways, including racial or ethnic difference, language, cultural habits, alongside very much being from somewhere else.

Second, some in rural areas perceive immigrants to be cutting in line ahead of them and favored by elites (Cramer 2016; Hochschild 2018; Wuthnow 2019). However, above and beyond what Cramer (2016) concludes as the rural out-group (i.e., urban areas and government); the perceived elites in urban and coastal areas are purportedly favoring immigrants and racial minorities (also disproportionately in cities) at the expense of rural areas. In many rural areas there is a general sense of things generally going poorly or not as well as in other places; given this is both a material threat and a symbolic threat to dignity, there is a human impulse to salvage the in-group by locating out-groups to blame for the cause of such decline, according to social identity literature (Branscombe et al. 1999; Kinder and Kam 2009).

Not only does social psychology *theoretically* suggest this dynamic via social identity theory (SIT); the right-wing populism literature does as well (Mudde and Kaltwasser 2017). According to the definition of right-wing populism, a right-wing populist divides the society into "the people", who are morally good and deserving, against a corrupt "elite" who purportedly favors lower-status groups perceived to be cutting in line ahead of the deserving people. This causes those who see themselves as part of the people to scapegoat and blame these lower-status groups. With regard to a rural identity in particular, the perception of rural areas is not only that urban and coastal elites are biased against them; it is also that such elites favor those in cities (particularly poorer racial minorities) and especially immigrants, who are seen is cutting in line in front of citizens (Cramer 2016; Hoschschild 2016; Wuthnow 2019). Such an explanation is particularly compelling given that anti-intellectualism is associated strongly with rural social identity (see Chapter 6 or Lunz Trujillo 2021).

This relates to the third reason, which is the activation of anti-immigration attitudes by right-wing populists using this same logic. The mid- to late- 2010s also saw an increase in anti-immigration rhetoric by conservative political elites in particular, including politicians such as Donald Trump and media pundits such as Laura Ingraham. Notably, such figures (like Ingraham) often talk about immigration negatively *while showing images of rural America*. This is captured in Figure 5.1, when Ingraham went on a highly controversial rant about demographic changes due to immigration purportedly causing us to live in a different and more undesirable America. During this segment, the upper right repeatedly featured images of rural and agricultural America when illustrating who or what in the U.S. is under threat.

Figure 5.1: *Screenshot of The Ingraham Angle episode aired on August 8, 2018. The segment featured rural and farming imagery while Ingraham talks about "massive" demographic changes due to immigration.*

This U.S. phenomenon is part of a broader rise in far-right populist support stemming from anti-immigrant sentiment. Such sentiment has increased in Western countries over the past couple decades, fueled by increased migration to Western countries from the Middle East and Eastern Europe – particularly in Western Europe – and from East Asia and Latin America to the U.S. and Canada. Supporters of the far right have adopted anti-immigrant sentiment over feared cultural changes and perceived impact on the economic climate (Halikiopoulou and Vlandas 2020). Thus, rural identifiers who are also right-leaning and white (Jardina 2019) will be especially prone to anti-immigrant sentiment.

For these reasons – immigrants being perceived as "cutting in line" or in direct economic competition, and immigrants being seen as outsiders to rural areas in a number of ways – alongside elite cueing of anti-immigrant rhetoric - make immigrants a perceived rural identity out-group. I would like to take a moment here to note that this does not make all rural residents, or even all rural social identifiers, anti-immigrant and xenophobic. In fact, many rural identifiers are themselves immigrants or related to

immigrants. Furthermore, an ethnographic study of rural residents in Iowa found their views on immigration are complex and nuanced, and rurality by no means determines attitudes toward immigrants. Many rural Americans are welcoming of migrants in communities experiencing population decline or a need for workers (Lay 2012; Wuthnow 2019). For example, below I find that one particular group – white rural Democrats – actually feel more positively toward undocumented immigrants when exposed to a prompt suggesting that the proportion of racial and ethnic minorities will disproportionately increase in rural areas especially. Exposure to this treatment for all other rural groups does not significantly alter feelings toward undocumented immigrants, compared to the control group. That said, this effect may not be statistically significant.

To repeat: I am not saying that all rural residents are hostile toward immigrants or outsiders. Rather, I argue that immigrants are a rural identity outgroup – with some exceptions - and that there is an *association* between anti-immigration sentiment and rural identity for the reasons I have outlined above, particularly for non-Hispanics and non-Democrats. To test my argument, I draw on cognitive approaches to SIT, which state that social identities are not fixed but dynamic and vary according to situational features such as group salience and group threats (Hogg et al. 1995; Huddy 2003; Stets and Burke 2000). I therefore establish an empirical link between rural social identity and immigrants as an outgroup by examining changes between waves one and three of panel data on American adults collected Fall 2020 (YouGov, N=1471). Using cross-lagged models, I first analyze how changes in rural identity strength and importance over time relate to changes in measures of immigration attitudes. In addition, since immigration attitudes are strongly linked with attitudes toward the perceived ethnic groups associated with

immigrants, I also look at how rural social identity strength and importance changes relate to white racial identity (Jardina 2019) and the difference between white and Hispanic feeling thermometer ratings (Valentino et al. 2013) over time. This verifies that the immigrant out-group is symbolically oriented and racially coded for rural social identifiers.

From this analysis, I find overall that increases in rural social identity strength predict greater anti-immigrant attitudes over time, and that increases in anti-immigrant sentiment predict stronger rural social identification. That said, the latter effect is larger than the former. Further, stricter immigration attitudes, greater racial social identity strength and importance, and greater differences in feelings toward whites versus Hispanics predict rural identity strength and importance for white rural respondents, but not vice versa. There are no significant effects for Hispanic rural respondents. For black rural respondents, this dynamic is only significant for stricter immigration attitudes predicting rural identity strength. These results provide evidence that perceived symbolic threat by an outgroup heightened ingroup identification (Branscombe et al. 1999).

This finding is further backed by experimental evidence from wave two of the survey. In this experiment, I find that acknowledging disrespect towards rural areas in the U.S. (i.e., disrespect towards the ingroup) results in more positive attitudes toward undocumented immigrants compared to the control group among rural respondents. This is expected, as SIT sees symbolic group threats and disrespect as primary drivers of social identification and outgroup derogation (Tajfel 1981). Further, highlighting economic (material) threat to rural areas or demographic threat to rural areas does not significantly change feelings toward undocumented immigrants. These null findings are

predicted by SIT, which posits that threat is more symbolic to the status of the ingroup than material (Tajfel 1981), and do not support explanations of intergroup dynamics being material competitions (Bobo 1983). These results also suggest that the immigration threat is not necessarily racial, but that immigration is linked with racial/ethnic attitudes as indicated by the cross-lagged analysis.

Methods – Survey Information and Cross-Lagged Analysis

The first test of the causal relationship between rural identity and immigration attitudes takes advantage of waves one and three of original panel data conducted in fall 2020 using YouGov. This three-wave survey was designed, funded, and implemented by the Center for the Study of Political Psychology (CSPP) at the University of Minnesota, and will be referred to here as the CSPP 2020 data.

Between October 6 and 14, 2020, YouGov interviewed 2815 adult U.S. citizens who were matched down to a sample of 2615 respondents in the final data set. The respondent demographic makeup on age, gender, race, and education was constructed using stratified sampling from the 2018 American Community Survey (ACS). YouGov successfully recontacted 1865 respondents from wave one who completed wave two of the survey. Wave two was conducted between October 23 and November 2, 2020. For wave three, YouGov recontacted respondents from waves one and two; 1471 individuals completed the survey. Wave three was conducted between November 9 and 16, 2020. For each wave, the cases were weighted to the ACS sampling frame using propensity scores and post-stratification on 2016 presidential vote choice (wave three only), gender, age,

race, and education level. The sample demographics for weighted and unweighted data can be found in the appendix.

On waves one and three, all respondents were asked a question on whether and how much they thought immigrant numbers in the United States should be increased, decreased, or kept the same. This is used as the immigration attitude variable. Although this question is more about immigration policy attitudes rather than group-based affect, studies of public opinion commonly find that attitudes towards group-affiliated policies are correlated with affect towards the group (Conover 1988; Gilens 1999). Further, this outcome variable is one of multiple indicators used in the study.

All respondents were also asked two questions that measure rural social identity. The first is a question asks respondents how much being a small town or rural resident is important to them, with five possible response options from not at all important (1) to extremely important (5). The second question asks respondents the extent to which they see themselves as small town or rural residents. The five response options ranged from not at all (1) to a great deal (5). For both wave one and wave three, these two questions correlated at approximately 0.76. These two questions were averaged together to form a rural identity scale, which was recoded to range from zero to one. This scale at wave one and this scale at wave three correlate at 0.77.

To account for and measure the potentially racialized dimension of immigration, I also create a measure of feeling toward Hispanics by subtracting white feeling thermometer ratings from Hispanic/Latino feeling thermometer ratings for whites. I also do this for black respondents by subtracting the black feeling thermometer ratings from Hispanic/Latino feeling thermometer ratings.

Finally, respondents were also asked whether they were raised in a small town or rural area, and whether they currently live in a small town or rural area. The possible response options for either of these two questions are yes or no. If a respondent answered yes to either of these two questions, they are considered a subjective rural resident. Specific question wordings for partisanship, rural identity, and rural residency (along with the number of respondents who chose each response) can be found in the appendix.

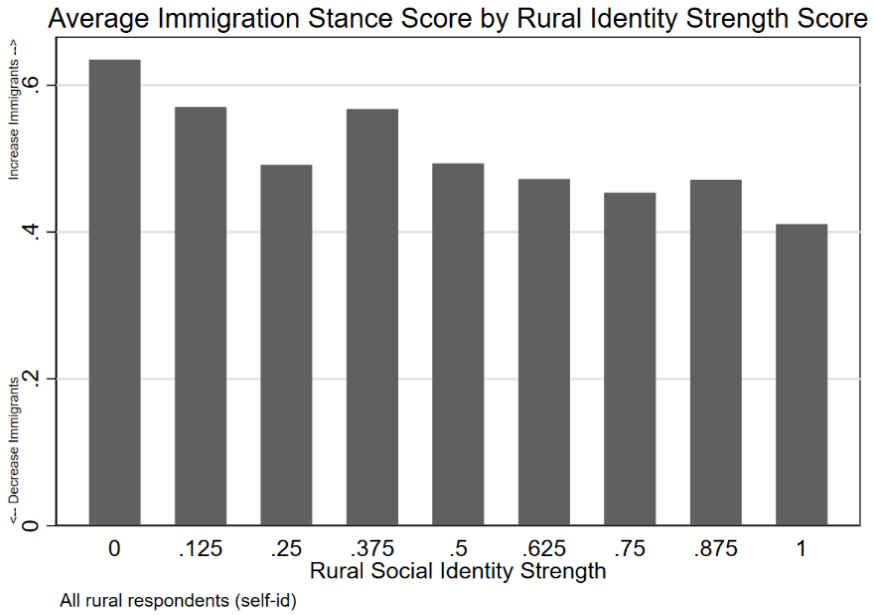
These questions form the basis of the cross-lagged modeling strategy. Cross-lagged models can theoretically help establish causal predominance between two lagged variables across time. That said, cross-lagged models have some flaws. First, they do not account for contemporaneous relationships between variables, nor do they provide an opportunity to include lagged endogenous regressors. Second, they do not account for the stability of the theoretical construct over time (i.e., whether the values of the variables mean the same thing over time) (Kearney 2017). There are other weaknesses to this approach as well. For these reasons, according to Kearney, many have suggested the use of cross-lagged path or regression models instead. Here, I employ both. Before I do this, however, I examine some features of the variables I just described to gain a better picture of the relationship between rural social identity strength and immigration (and racial) attitudes.

Immigration, Racial Attitudes, and Rural Identity: Descriptive Statistics

The Wave 1 YouGov data confirms general expectations that rural social identity strength and importance negatively correlate with more restrictive immigration policy attitudes (α = -0.21 [weighted, overall]; α = -0.28 [weighted, white respondents only]. Similarly, rural and small-town residents are less supportive of immigration increases

(mean score = 0.46 versus 0.55 for everyone else). Figure 5.2 below shows the mean immigration attitude values by rural social identity strength/importance. Also recall from Chapter 3 that rural social identity strength correlated with the rural resident feeling thermometer at 0.30 and the urban resident feeling thermometer – the proposed out-group - at 0.04 using Study 2 data.

Figure 5.2: *Distribution of rural social identity and immigration attitudes.*

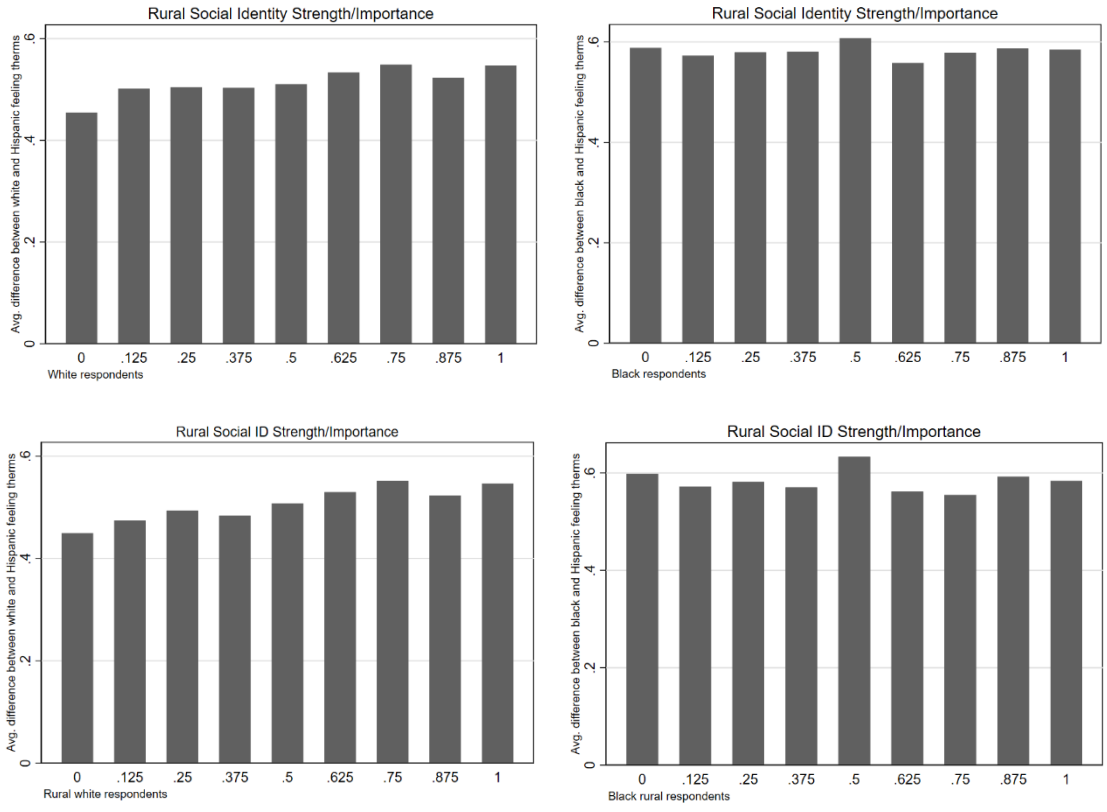


Note: Mean immigration attitude values for each rural social identity value shown. Greater values on the y-axis indicate more pro-immigration attitudes. Wave 1 data shown.

The correlation between immigration stance and rural social identity varies, however, by respondent race and partisanship. Rural identity strength for rural black respondents correlates with this immigration stance at 0.13, while for white rural respondents the correlation is -0.33 and Hispanic/Latino rural residents it is -0.08. For rural Democrats the correlation is -0.04, for rural Independents it is -0.06, and for rural Republicans it is -0.21.

Figure 5.3 shows the relationship between rural social identity strength/importance and measures of white-Hispanic and black-Hispanic ethnocentrism. This is shown for all respondents (top two graphs) versus rural/small town respondents (bottom two graphs). For white rural respondents especially, rural social identity importance and strength corresponds to greater ethnocentric (white versus Hispanic) sentiment. For black rural respondents, this relationship is non-existent, though the overall difference between the two feeling thermometers is higher on average. This suggests that white respondents in particular seem to view Hispanics as a rural outgroup (or whites as an ingroup), especially for white rural respondents.

Figure 5.3: *Rural identity and racial feeling thermometer differences, by race (all versus rural).*

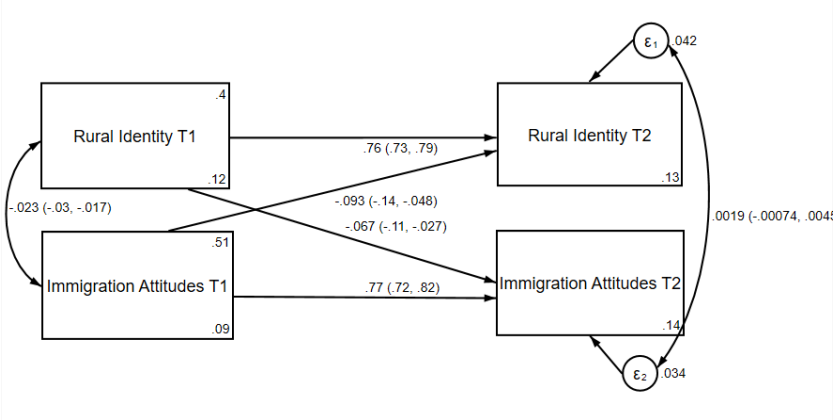


Note: Mean values for each rural social identity value shown. Greater values on the y-axis indicate a wider difference between racial ingroup and ethnic outgroup. Wave 3 data shown.

Results – Cross-Lagged Models and Regressions

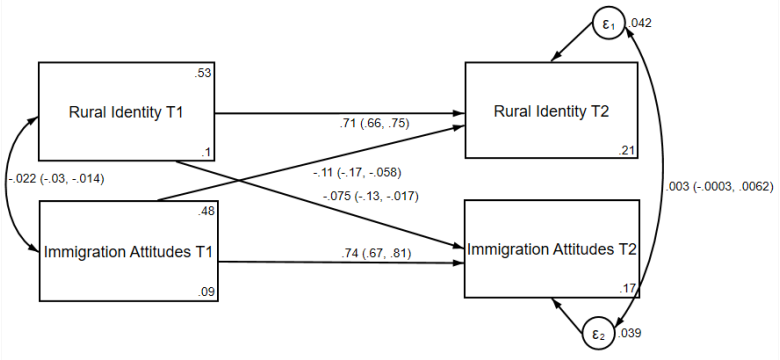
Immigration Attitudes. Figure 5.4 shows the results of the cross-lagged analysis for all respondents in the sample, while Figure 5.5 shows these results for self-identified rural respondents only.

Figure 5.4: *Results of Cross-Lagged Model between rural social identity strength/importance and immigration attitudes, all respondents.*



Note: Two-wave cross-lagged model for time-lagged effects between rural identity scale and immigration attitudes. Standardized coefficients shown near paths, 95% confidence intervals in parentheses. Data weighted to population benchmarks.

Figure 5.5: *Results of Cross-Lagged Model between rural social identity strength/importance and immigration attitudes, self-identified rural/small-town respondents only.*



Note: Two-wave cross-lagged model for time-lagged effects between rural identity scale and immigration attitudes. Standardized coefficients shown near paths, 95% confidence intervals in parentheses. Data weighted to population benchmarks.

The results shown in Figures 5.4 and 5.5 are very similar and do not significantly differ between the full sample and rural respondents only. Rural identity in wave one significantly predicts rural identity in wave three. Similarly, immigration attitudes in wave one also predict immigration attitudes in wave three. Further, in both figures, rural identity strength increases over time predict attitudes that are less amenable towards immigrants, *and* less amenable attitudes toward immigrants predict stronger rural identity scores. Given this, these results suggest that the relationship between rural residents versus all respondents is fairly similar, and that the relationship between rural identity strength and immigration attitudes causally moves in both directions.

Table 5.1 additionally shows a similar strategy using cross-lagged OLS regressions, with and without control variables, for the entire sample and rural-only respondents. The results from this table suggest that the findings in Figures 5.4 and 5.5 above do not hold once control variables from T1 are added into the model.

Table 5.1: *Cross-lagged OLS regression models predicting rural identity (T2) and immigration response (T2) for full sample and rural residents only, including bivariate models and models with control variables.*

	(1) Rural ID (T2) *Full Sample*	(2) Rural ID (T2) *Full Sample*	(3) Immigration (T2) *Full Sample*	(4) Immigration (T2) *Full Sample*	(5) Rural ID (T2) *Rural Only*	(6) Rural ID (T2) *Rural Only*	(7) Immigration (T2) *Rural Only*	(8) Immigration (T2) *Rural Only*
Rural/Small Town ID (T1)	**0.77*** **	**0.74*** **	**-0.07*** **	-0.03	**0.71*** **	**0.69*** **	**-0.07*** **	-0.02
	(0.02)	**(0.02)**	**(0.02)**	(0.02)	**(0.02)**	**(0.03)**	**(0.03)**	(0.03)
Immigration No of Migrants (T2)	**-0.10*** **	-0.04	**0.77*** **	**0.71*** **	**-0.11*** **	-0.05	**0.75*** **	**0.69*** **
	(0.02)	(0.03)	**(0.03)**	**(0.04)**	**(0.03)**	(0.04)	**(0.04)**	**(0.05)**
Party ID	-	**0.04***	-	-0.01	-	**0.07****	-	-0.01
		(0.03)		(0.03)		**(0.03)**		(0.04)
Symbolic Ideology	-	0.00	-	**-0.14*** **	-	-0.04	-	**-0.17*** **
		(0.03)		**(0.04)**		(0.04)		**(0.05)**
Black	-	0.01	-	-0.01	-	**0.06****	-	-0.00
		(0.02)		(0.02)		**(0.02)**		(0.02)
Hispanic	-	-0.00	-	0.01	-	0.01	-	0.01
		(0.02)		(0.03)		(0.03)		(0.04)
Income	-	-0.03	-	0.02	-	-0.04	-	0.01

		(0.03)		(0.03)		(0.04)		(0.04)
Education Level	-	**-0.05***	-	0.01	-	**-0.06***	-	-0.00
		(0.03)		(0.02)		**(0.03)**		(0.03)
Age	-	**-0.07****	-	0.02	-	-0.05	-	0.02
		(0.03)		(0.03)		(0.04)		(0.04)
Female	-	**0.04*****	-	0.01	-	0.03*	-	0.01
		(0.01)		(0.01)		(0.02)		(0.02)
Constant	0.13***	0.14***	0.14***	0.21***	0.20***	0.21***	0.16***	0.24***
	(0.02)	(0.03)	(0.02)	(0.04)	(0.02)	(0.04)	(0.03)	(0.05)
r2	0.65	0.66	0.63	0.66	0.58	0.58	0.59	0.64
N	1471.00	1261.00	1471.00	1261.00	877.00	754.00	877.00	754.00

Note: * = p < 0.10, ** = p < 0.05, *** = p < 0.01, standard errors in parentheses. Results in bold show statistical significance. All variables (independent and dependent) have been recoded from zero to one. Data weighted to T2 population benchmarks.

However, further analysis may be warranted here, given that race and party identity are linked with immigration attitudes. It could be the case, for instance, that immigration attitudes are somewhat ossified for partisans. I expect this not only because of previous literature, but also due to some of the descriptive characteristics of the data noted above. For this reason, I run cross-lagged OLS regressions by respondent race and partisanship with control variables from T1 added to the models. These results can be found in Table 5.2. According to these results, during the timespan of the survey, harsher immigration attitudes tend to lead to stronger rural identification for Independents only, while stronger rural identification corresponds to harsher immigration attitudes for whites only.

Table 5.2: *Cross-lagged OLS regression models predicting rural identity (T2) and immigration response (T2), interacted with racial group or partisanship (rural respondents only).*

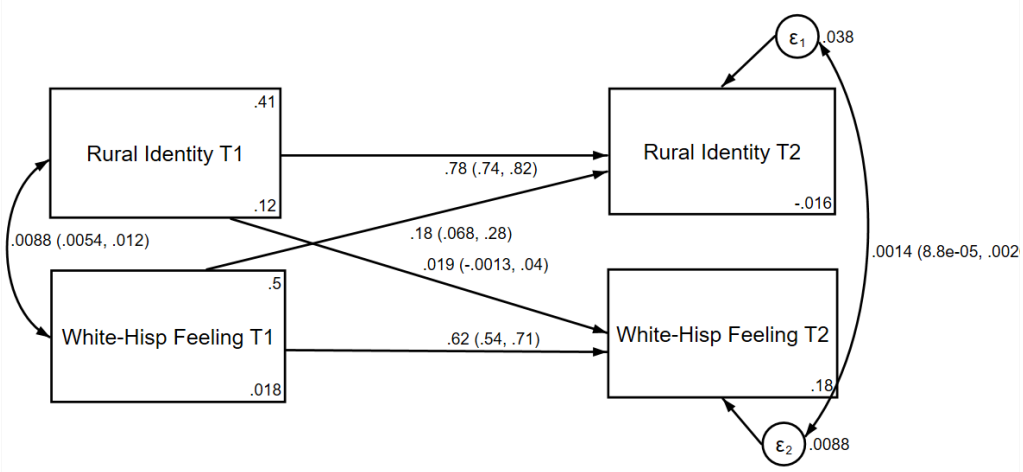
	(1) Rural Importance T3 *Rural only*	(2) Immigration Attitude T3 *Rural only*	(3) Rural Importance T3 *Rural only*	(4) Immigration Attitude T3 *Rural only*
Rural/Small Town Importance (T1)	**0.68*****	-0.05	**0.67*****	**0.17***
	(0.04)	(0.06)	**(0.04)**	**(0.10)**
Immigration Policy Attitude (T1)	-0.02	**0.67*****	-0.10	**0.66*****

	(0.08)	**(0.07)**	(0.08)	**(0.07)**
Party ID	-	-	0.00	-0.02
			(0.02)	(0.02)
Symbolic Ideology	0.00	-0.05	-0.00	-0.06
	(0.05)	(0.06)	(0.05)	(0.06)
Black	0.02	-0.00	-	-
	(0.03)	(0.03)		
Hispanic	0.00	0.03	-0.03	-0.01
	(0.03)	(0.10)	(0.03)	(0.08)
Income	-0.01	0.02	-0.02	0.01
	(0.05)	(0.05)	(0.05)	(0.05)
Education Level	-0.04	-0.02	-0.04	-0.00
	(0.05)	(0.05)	(0.05)	(0.04)
Age	-0.06	0.02	-0.05	0.00
	(0.05)	(0.05)	(0.04)	(0.05)
Female	**0.04***	0.01	0.03	0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Independent	**0.17****	-0.03	-	-
	(0.07)	(0.06)		
Republican	0.04	-0.07	-	-
	(0.06)	(0.08)		
Independent X Immigration (T1)	**-0.28****	-	-	-
	(0.13)			
Republican X Immigration (T1)	-0.04	-	-	-
	(0.09)			
Independent X Rural ID (T1)	-	-0.06	-	-
		(0.09)		
Republican X Rural ID (T1)	-	0.01	-	-
		(0.11)		
White	-	-	-0.05	**0.16****
			(0.05)	**(0.06)**
White X Immigration (T1)	-	-	-0.01	-
			(0.09)	
White X Rural Identity (T1)	-	-	-	**-0.28****
				(0.12)
Constant	0.20***	0.24***	0.31***	0.11*
	(0.07)	(0.07)	(0.06)	(0.06)
r2	0.58	0.60	0.57	0.61
N	415.00	415.00	415.00	415.00

Note: * = p < 0.10, ** = p < 0.05, *** = p < 0.01, standard errors in parentheses. Results in bold show statistical significance. All variables (independent and dependent) have been recoded from zero to one. Data weighted to T2 population benchmarks.

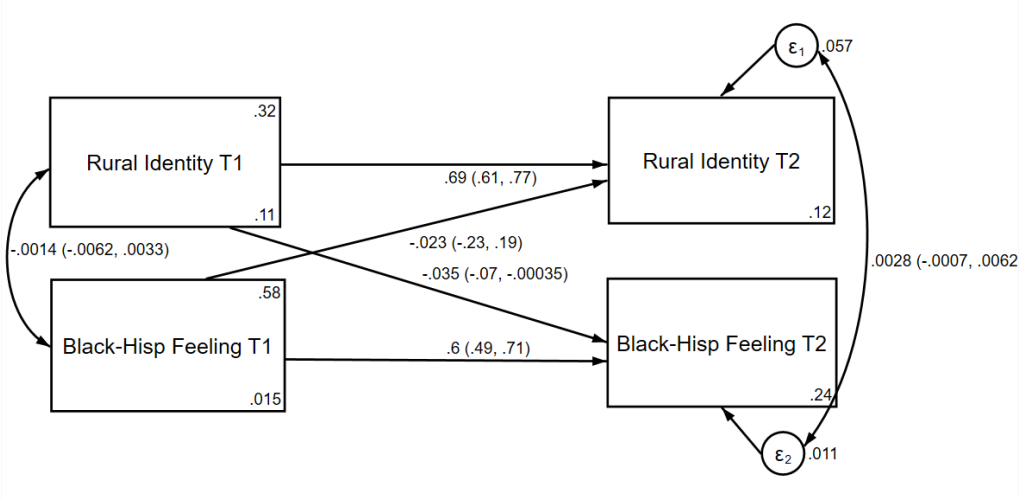
White-Hispanic and Black-Hispanic Ethnocentrism. In my analysis, I also include a comparison of anti-Hispanic ethnocentrism because in the minds of many Americans, immigrants are stereotyped and racialized as being Hispanic; thus, these two terms are linked. Though other groups are affiliated with immigration (such as Muslims), I only have feelings toward Hispanics available in this data set. Figure 5.6 shows the results of the cross-lagged analysis for white respondents between rural social identity strength and the difference in white and Hispanic feeling thermometer ratings. Figure 5.7 shows a similar analysis, but for black respondents and the difference in black and Hispanic feeling thermometer ratings.

Figure 5.6: *Results of Cross-Lagged Models between rural social identity strength/importance and white-Hispanic feeling thermometer difference, for all white respondents.*



Note: Two-wave cross-lagged model for time-lagged effects between rural identity scale and ethnocentrism scales. Standardized coefficients shown near paths, 95% confidence intervals in parentheses. Data weighted to population benchmarks.

Figure 5.7: *Results of Cross-Lagged Models between rural social identity strength/importance and black-Hispanic feeling thermometer difference, for all black respondents.*



Note: Two-wave cross-lagged model for time-lagged effects between rural identity scale and ethnocentrism scales. Standardized coefficients shown near paths, 95% confidence intervals in parentheses. Data weighted to population benchmarks.

The results from Figure 5.7 above suggest that changes in rural social identity strength and importance over time do not correspond to differences in feelings toward Hispanics for white respondents. However, the opposite dynamic is statistically significant; as the gulf between feelings toward whites and Hispanics increases for white respondents, they are more likely to increase their rural social identity affiliation. In other words, ethnocentrism (against Hispanics, an ethnic group highly linked to immigrants in the U.S.) drives rural identity but not vice versa for whites. Conversely, rural identity drives *decreased* ethnocentrism between blacks and Hispanics for blacks. Again, these findings corroborate the results above relating to racial identity; pro-white sentiment, and possibly anti-Hispanic sentiment, drive rural identification for whites. However, for blacks, rural identification creates less of a difference in feeling between the racial in-group and the Hispanic out-group. This could be a factor of either partisanship – that black rural identifiers are politicized according to race, and therefore have a stronger

Democratic affiliation – and/or a factor of black rural identity having a different out-group or set of out-groups than white rural identity.

Table 5.3 shows the cross-lagged OLS regression models that correspond to Figures 5.8 and 5.9 for rural respondents. For rural whites, the opposite of the cross-lagged model occurs; rural identity strength drives higher white-Hispanic ethnocentrism but not vice versa. This effect only occurs for rural whites and not for all whites in the sample (see appendix for details). For rural blacks, a similar result to the cross-lagged models occurs; rural identity increases result in *lower* ethnocentrism scores between blacks and Hispanics.

Table 5.3: *Cross-lagged OLS regression models predicting rural identity (T2) and White-Hispanic ethnocentrism (T2) for whites, or Black-Hispanic ethnocentrism (T2) for blacks, rural respondents only.*

	(1) Rural ID (T2)	(2) White-Hisp. Ethnocentrism (T2)	(3) Rural ID (T2)	(4) Black-Hisp. Ethnocentrism (T2)
	Whites	*Whites*	*Blacks*	*Blacks*
Rural ID (T1)	**0.70*** **	**0.03***	**0.61*** **	**-0.04***
	(0.03)	**(0.02)**	**(0.06)**	**(0.02)**
White-Hisp Ethnocentrism (T1)	0.06	**0.49*** **	-	-
	(0.08)	**(0.05)**		
Black-Hisp Ethnocentrism (T1)	-	-	-0.20	**0.56*** **
			(0.17)	**(0.07)**
Party ID	**0.09** **	0.02	0.04	0.00
	(0.04)	(0.02)	(0.07)	(0.04)
Symbolic Ideology	-0.03	0.03	0.11	-0.04
	(0.04)	(0.02)	(0.08)	(0.05)
Hispanic	0.02	**0.03** **	-0.09	-0.15
	(0.06)	**(0.01)**	(0.15)	(0.18)
Income	-0.03	0.02	-0.21	-0.06
	(0.05)	(0.02)	(0.13)	(0.05)
Education Level	**-0.08***	-0.03	-0.06	-0.00
	(0.04)	(0.02)	(0.08)	(0.03)
Age	-0.05	-0.03	-0.10	0.01
	(0.04)	(0.02)	(0.12)	(0.05)
Female	0.03	-0.01	0.00	-0.00
	(0.02)	(0.01)	(0.04)	(0.02)
Constant	**0.14** **	**0.24*** **	**0.42*** **	**0.31*** **

	(0.06)	**(0.03)**	**(0.13)**	**(0.07)**
r2	0.59	0.43	0.43	0.37
N	518.00	518.00	178.00	177.00

Note: * = p < 0.10, ** = p < 0.05, *** = p < 0.01, standard errors in parentheses. Results in bold show statistical significance. All variables (independent and dependent) have been recoded from zero to one. Data weighted to T2 population benchmarks. See appendix for these results with rural and non-rural residents.

In summary, the overall tendency is that attitudes relating to immigration or racial affiliation and rural social identity are causally complex, but are affiliated with each other. For white respondents and Independents, rural social identity affiliation drives immigration attitudes. Rural social identification for black Americans does not significantly predict immigration attitudes using this data set. Finally, rural social identity tends to drive ethnocentrism (with Hispanics/Latinos being the out-group) for both whites and blacks, though for the former the relationship is positive while for the latter it is negative.

In other words, for white respondents, stronger anti-immigration attitudes and wider gulfs between feelings about whites versus Hispanics all correspond to stronger rural social identification. This implies that for whites in particular, immigrants and Hispanics are seen as rural out-groups. Alternatively, black respondents also tend to have higher rural social identity strength with more anti-immigration attitude shifts, but not with black-Hispanic feeling differences. This could mean that restrictive views of immigration undergird black rural social identification, but without the corresponding feelings toward a prototypical immigrant ethnic group. Finally, Independents show the greatest causal correspondence between immigration attitudes and rural identity, though this may be due to partisans having better established stances on immigration.

These analyses contain some limitations. First, I do not have measures of other ethnic categories commonly linked with immigration, such as Muslims, Middle

Easterners, or Asians, though I would expect similar results. Second, cross-lagged models suffer from some shortcomings. Although I also include cross-lagged regressions, I further test of this chapter's expectations and the validation of the results of this section by presenting experimental results from wave two of the CSPP 2020 data. The next section describes this survey experiment and its results, ultimately corroborating and expanding upon some of the findings from the cross-lagged models.

Methods – Experiment

To further provide evidence that immigrants form an outgroup for rural identifiers – especially for white rural identifiers - an experiment on wave two of the CSPP 2020 survey. All respondents were randomly assigned to one of four conditions, which are short paragraphs between 92 and 120 words each. Each condition except the control condition was designed to increase the salience of rural America – and thus designed to activate rural identity - using three different angles. The first treatment condition highlights how the economic recovery since the Great Recession has disproportionately benefited metro areas, with rural areas not having fully recovered even a decade later. This treatment aims to test whether the threat is more economic or material than symbolic; according to SIT, out-group threats are primarily status-based or symbolic (Huddy 2003; Tajfel 1981). For this reason, I expect exposure to this treatment to not move feelings toward immigrants, or to only slightly move feelings toward immigrants, in a negative direction if immigrants are indeed an out-group.

Second, another condition emphasizes how rural Americans are often looked down on and negatively stereotyped, though the passage takes on a pro-rural tone. Once again, I expect immigrant attitudes to move as a result of exposure to this treatment, as it captures – and sympathetically acknowledges – symbolic threat or negativity toward the

in-group. Such a link between a threat to rural way of life and immigration can be found in previous literature (such as Wuthnow [2019]).

The third condition draws heavily from Craig and Richeson (2014), which tells participants that the United States is set to become a majority-minority nation by 2042. However, the treatment also includes a line emphasizing how the population growth rate of racial and ethnic minorities in rural America is higher than in other geographic areas. This treatment also promotes a potential group-based threat: that the potential out-group will increase over time. However, it differs from the second condition because it is not based on a direct threat to the in-group status (rural) but a threat *by* the out-group (immigrants who are racial/ethnic minorities). These two conditions also differ on whether the intergroup dynamic is based more on racial differences or more on rural-specific considerations. Finally, the control condition talks about how people are moving around more in the United States recently. This condition was taken from Craig and Richeson (2014).

Then, participants were asked an attention check question with yes or no responses. These questions asked about a key point in the previous passage. For the control condition, 73% of respondents given that treatment answered the attention check question answered correctly, compared to 88% of respondents in the economic condition, 86% of respondents in the respect condition, and 78% of respondents in the majority-minority condition. Overall, the pass rate across conditions is 82%. Given that a significant proportion of respondents failed the attention check in some conditions especially, the experimental results will be analyzed with and without those who failed the attention check.

After this, participants were asked to rate four groups – Republicans, Democrats, Undocumented Immigrants, and Scientists – using feeling thermometers in random order. For this analysis, only the Undocumented Immigrants feeling thermometer will be used; see the next chapter for the results using the Republicans and Democrats feeling thermometers as experimental dependent variables. The use of a feeling thermometer here is important in establishing the necessarily emotional dimension of social identities (Tajfel 1981). I recoded the Undocumented Immigrants feeling thermometer to range from zero to one. Please see the appendix for exact treatment wording and question wording.

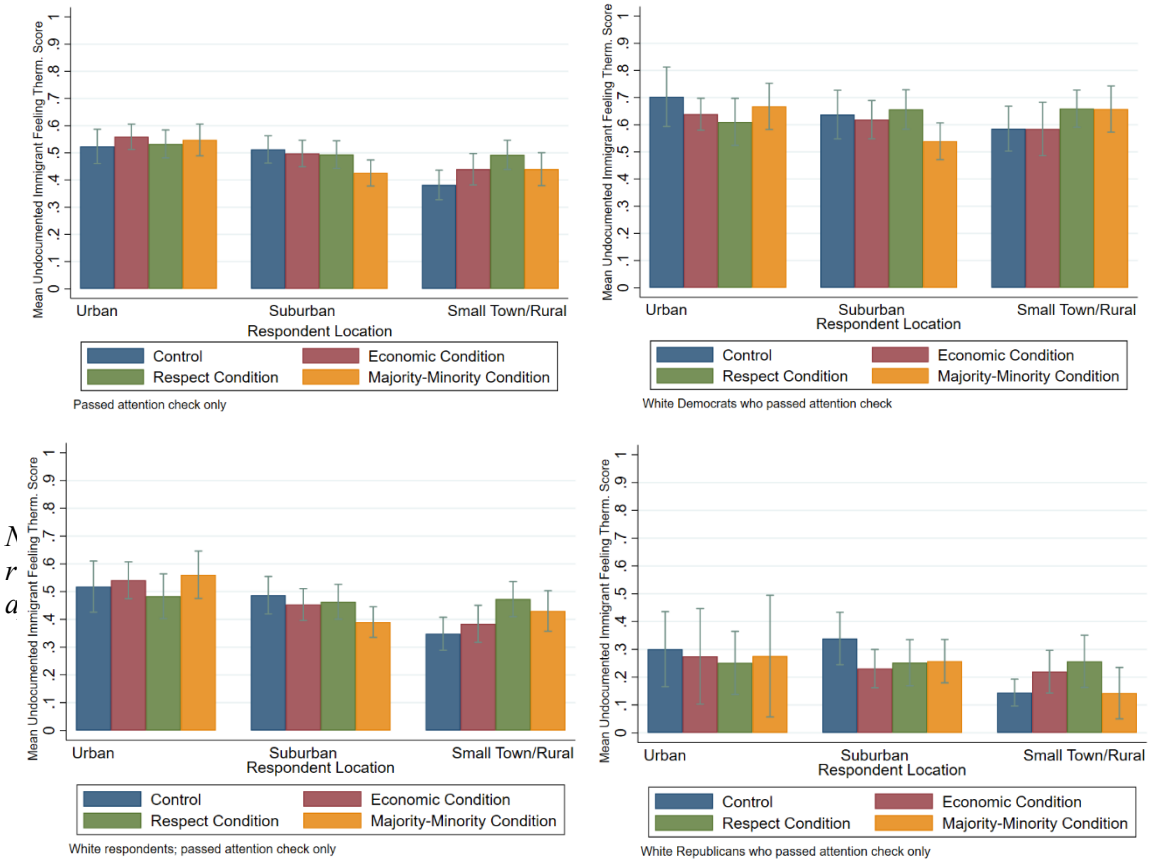
Finally, I measure respondent location by their stated location from Wave 1 of the survey (self-identified location). The options include living in an urban, suburban, small town, or rural area; I combine rural and small town, while keeping urban and suburban as separate categories. I also use RUCA codes to determine respondent location; anything over a 3 designation is considered rural, while everything else is non-rural.

Results – Experiment

Similar to the results in the above section, rural social identity strength and importance is negatively correlated with feelings toward undocumented immigrants for those self-identified rural residents in the control group (α = -0.14 [all respondents]; α = -0.29 [white respondents]). Further, self-identified rural and small-town residents rate undocumented immigrants cooler, on average, compared to everyone else using only respondents in the experimental control (mean = 0.32 for rural and small town residents; mean = 0.51 for everyone else). Similarly, for rural residents according to RUCA codes, rural social identity and feeling toward undocumented immigrants in the control group are correlated at -0.27 (-0.28 for whites). Again, objective rural residents rate

undocumented immigrants cooler, on average, compared to everyone else using only respondents in the experimental control (mean = 0.33 for rural and small town residents; mean = 0.47 for everyone else). Given the average attention check fail rate of 18% across all conditions, I analyze the results for just those respondents who passed the attention check. Figure 5.8 below shows these results (see Figure A5.1 in the appendix for these results for all respondents).

Figure 5.8: *Experimental results (CSPP 2020) for all respondents (top left) and white respondents (bottom left) who passed the attention check, and for white Democrats (top right) and white Republicans who passed the attention check (bottom right).*



Note: Location determined by self-identification.

The left-hand side of Figure 5.8 displays the results for all respondents who passed the attention check (top) and for white respondents who passed the attention check

(bottom). Such results suggest four things. The first is that, in the control condition, urban and suburban respondents have similar and more positive baseline opinions of undocumented immigrants (around 0.5 for all and white respondents) compared to rural and small-town respondents (less than 0.4), backing up previous findings from studies like Fennelly and Federico (2008).

The second is that rural and small-town respondents, when primed by hearing about the disrespect of rural areas from a rural-sympathetic angle, felt less coldly toward the undocumented immigrant group. This is true of all respondents, white respondents only, and white Republicans *and* Democrats. This suggests that acknowledging a perceived in-group symbolic threat for rural areas minimized dislike for a proposed out-group, even if this perceived threat or blow to self-esteem is not directly related to the out-group in question. This falls in line with expectations from SIT, in that group identification and threats are predicted to be more symbolic and status based (rather than primarily material or economic) (Tajfel 1981); in other words, derogating out-groups of perceived lower status can bolster in-group pride and self-esteem. Further, acknowledging that the group has been wronged or viewed unjustly should reduce the need for out-group derogation (Branscombe et al. 1999). It therefore follows from the experimental findings that undocumented immigrants are an out-group.

Third, and less expectedly, the findings by Craig and Richeson (2014) may actually only be relevant for white respondents who live in suburbs. The findings here may be impacted by a few minor deviations; the dependent variable is slightly different here, as well as the fourth condition wording, compared to the Craig and Richeson study. However, the dependent variable and the condition are very similar to the original study

and the latter only includes an extra line about rural areas. More research in this area is needed to make any firmer conclusions.

Fourth, and related to the third point, is that this loss of white majority-minority status does not negatively impact white rural residents' views of immigrants, suggesting that rural anti-immigrant sentiment is not *solely* about racial or ethnic differences, though ethnicity is associated with immigration as noted in the previous section. It appears that the reason for this may be the attitudes of white rural Democrats, who are actually significantly *warmer* towards undocumented immigrants when given the majority-minority condition compared to the control condition. Notably, however, when looking at all Democrats who passed the attention check, the effect of the fourth condition on feelings toward undocumented immigrants does not hold for rural respondents; it appears that this is both an effect of partisanship and being white. See the appendix for details.

However, this fourth result for rural residents does not hold when using regressions to determine statistical significance. Model 1 in Table 5.4 predicts that being exposed to the Respect condition (compared to the control condition) tended to result in significantly warmer feelings toward immigrants for all rural respondents, in line with the second point above. I run the same model but interacting respondent race (Model 2) and partisanship (Model 3) to the effect of exposure to the different treatments. According to these results, exposure to the treatment conditions did not result in significantly different dependent variable values across white/non-white or partisanship (Democrat vs. Independent vs. Republican). Finally, Model 4 looks at treatment effects by partisanship for only white rural respondents. Again, party does not seem to significantly alter the

expected treatment effects. Replacing self-identified rural residents with rural residents defined by RUCA codes yields similar results (see chapter appendix for details).

Table 5.4: *Feelings toward undocumented immigrants by experimental treatment condition, for rural/small town respondents only (self-identified), by race and/or partisanship.*

	(1) Feelings toward Undocumented Imm. *Rural/small town respondents*	(2) Feelings toward Undocumented Imm. *Rural/small town respondents*	(3) Feelings toward Undocumented Imm. *Rural/small town respondents*	(4) Feelings toward Undocumented Imm. *White rural/small town respondents*
Economic Condition	0.07	0.03	0.01	0.02
	(0.05)	(0.09)	(0.06)	(0.07)
Respect Condition	**0.11***	0.02	0.06	0.08
	(0.04)	(0.09)	(0.05)	(0.07)
Majority-Minority Condition	0.04	-0.09	-0.02	0.07
	(0.05)	(0.10)	(0.06)	(0.07)
Respondent Race White = 1	-	**-0.22****	-	-
		(0.08)		
Economic X White	-	0.02	-	-
		(0.11)		
Respect X White	-	0.09	-	-
		(0.10)		
MM X White	-	0.16	-	-
		(0.11)		
Independent	-	-	**-0.28*****	**-0.30*****
			(0.07)	**(0.08)**
Republican	-	-	**-0.46*****	**-0.42*****
			(0.06)	**(0.06)**
Economic X Independent	-	-	0.06	0.11
			(0.11)	(0.13)
Economic X Republican	-	-	0.08	0.05
			(0.08)	(0.09)
Respect X Independent	-	-	0.03	0.05
			(0.09)	(0.11)
Respect X Republican	-	-	0.02	-0.02

			(0.08)	(0.09)
MM X Independent	-	-	0.05	-0.04
			(0.10)	(0.12)
Respect X Republican	-	-	0.03	-0.09
			(0.09)	(0.10)
Constant	0.38***	0.55***	0.61***	0.58***
	(0.03)	(0.07)	(0.04)	(0.05)
r2	0.02	0.07	0.36	0.41
N	367.00	367.00	367.00	264.00

Note: Passed attention check only. Standard errors in parentheses. . + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001. *Statistically significant coefficients bolded for emphasis.*

Discussion and Concluding Statements

As stated above, this chapter set out to accomplish four things. First, it aims to show that the relationship between rurality and anti-immigration sentiment goes beyond the demographic and political tendencies of rural areas. As noted in the experimental results especially, rural way of life and respect to rural areas – in-group respect – seems to play a role in attitudes toward undocumented immigrants, while rural social identity strength also corresponds to greater anti-immigration attitudes for political Independents and stronger racial social identifiers.

Thus, anti-immigration sentiment is linked to psychological affiliation with rurality and its corresponding respect for rural way of life, while immigrants appear to be an out-group, all of which extend beyond simple differences in rural-urban demographics and political leanings. This, suggests evidence for the second point of the chapter: that certain rural Americans -particularly white ones - perceive themselves as in the middle of a status hierarchy and forgotten or ignored by those of higher status while also seeing themselves as superior to lower-status groups, which corresponds to right-wing populism.

As with any analysis, there are limitations to the data used here. First, the survey data from YouGov was collected around the 2020 presidential election; it could be the

case that the political climate during this time was unique. In addition, the time between waves in the panel survey was relatively short. For these two reasons, the cross-lagged analysis in particular would benefit from an additional replication. As mentioned above, the experimental analysis, and thus the affective or group-based element of this chapter, could not be fully extended to different categories non-white rural residents. Future research should delve into this dynamic, though for white rural respondents, there is some evidence from the above experiment to suggest anti-immigrant affect hinges more on rural group concerns than strictly racial ones (though immigration is racialized and thus these two things cannot entirely be separated).

In the next chapter, I examine sentiments toward the urban rural out-group – experts – via anti-intellectualism. I find, both using correlational and experimental studies, that rural identity is affiliated with anti-intellectualism and with a greater likelihood of not endorsing health and scientific consensus.

CHAPTER 6: Rural Identity, Anti-Intellectualism, and Misinformation Endorsement

Previous research on rural political sentiment and rural identity have pointed to hostility towards experts and intellectuals in particular, who are seen as urban-affiliated groups. Such accounts often mention an appreciation of common sense along with a mistrust of scientists and experts (Cramer 2016; Hochschild 2018), also known as anti-intellectualism (Rigney 1991). Hofstadter's (1963) landmark book on anti-intellectualism discusses how farmers and agricultural workers for much of U.S. history – which made up the vast majority of rural residents before the mid to late 1900s - were split into two groups: the smaller group of "gentleman farmers" who successfully wed common sense with scientific expertise, and the larger group of "dirt farmers" who resented the gentleman farmers and their science-backed success. Hofstadter includes the following quote made by a British agricultural scientist after he lectured to American farmers in the 1800s: "[the farmers were] averse to change, and more averse still to the opinion that they are not already wise enough for all they have to do." (275). Condescending nomenclature notwithstanding, such anti-expert resentment has remained a part of rural culture and identity in the U.S. even today (Ching and Creed 1997; Cramer 2016).

Given this, one's rural social identity strength should positively predict attitudes on health and science that contradict scientific consensus via anti-intellectualism, which can be seen as a negative group-based affect towards experts and intellectuals. To quantitatively test this relationship – something not previously done at the national level – while also linking it to health and science misinformation endorsement, I use experimental evidence from Studies 5 and 6, as well as cross-sectional survey data from Survey 3 and the 2019 ANES pilot (Study 7). Attitudes toward health and science,

especially if misinformed, have been shown to strongly influence policy attitudes and likelihood of political activism on behalf of the issue. For instance, negative vaccine attitudes are the largest predictors of opposition to pro-vaccine policies (Stecula et al. 2020b), and have prompted anti-vaccine activism to block state-level pro-vaccine policy (Joslyn and Sylvester 2017; Motta et al. 2018). In addition, anti-intellectualism helps explain rural tendencies toward populism. Populist support is highly linked with anti-intellectualism, and can even constitute a subdimension of populist attitudes (Merkley 2020; Oliver and Rahn 2016). As noted in Chapter 3, however, anti-intellectualism seems particularly affiliated with rural identity and not negative attitudes toward government and political decision-making.

Put more clearly, I expect the following from this analysis. First, measures of rural social identification should positively and significantly predict anti-intellectualism, but not populist attitudes against political elites. This has been established in Chapter 3, but is further tested below experimentally increasing the salience of rural social identification for rural respondents, which results in higher average levels of anti-intellectualism. Notably, measures of objective rural residency do not significantly or positively predict anti-intellectualism.

In turn, anti-intellectualism has repeatedly been found to predict science and health misinformation endorsement, including misinformation relating to vaccines, GMOs, and climate change. Since anti-intellectualism is positively associated health/science misinformation endorsement, measures of rural social identification str positively and significantly associated with health/science misinformation endorsement.

Of course, rural social identifiers are not the only ones who adopt anti-intellectualism and misinformation related to science and medicine. For this reason, this chapter also emphasizes how adopting a particular social identity matters for political attitudes due to the adoption of perceived group values. Such a stance runs counter to many accounts of social identity formation according to Social Identity Theory (SIT), which stipulates that social identifiers necessarily need to be demographic members, as social identities are typically determined by psychological attachment to a group through having group features alongside adopting group norms (e.g., you first psychologically identify with rural areas and then you ascribe to perceived group norms and develop negative out-group affect, especially under perceived threat from the out-group) (Branscombe et al. 1999; Tajfel 1981). In a rural identity, where the group membership boundaries are gray, identification with group norms becomes more central.

Further, scholars have noted that in order to foster the acceptance of scientifically-backed attitudes and behaviors, scientists and science communicators must recognize and speak to skeptics' concerns based on underlying psychological traits, opinions, and values (Nyhan and Reifler 2010). Therefore, understanding the underlying values and psychology is an important step in gathering more support for science-backed evidence. Finally, this study establishes that measuring rurality as a subjective identity oftentimes matters more for political outcomes than more objective measures of rural-urban divisions; how to measure rurality is a long-standing debate because various ways to measure it are only moderately correlated (Hart et al. 2005; Nemerever and Rogers 2020).

Rural Identity, Anti-Intellectualism, and Health and Science Misinformation

Before proceeding, however, it is important to briefly introduce anti-intellectualism and its relationship to both rural identity and to health and science misinformation endorsement. Hofstadter (1963) defines three forms of anti-intellectualism, but emphasizes one in particular: anti-elitism that represents distrust and dislike of experts purporting to have more knowledge on a subject. Anti-intellectualism, especially for individuals who lean right politically, has been on the rise for decades in the U.S. (Lewandusky and Oberauer 2016; Oliver and Rahn 2016). Anti-intellectualism and distrust of experts are associated with misinformation endorsement – particularly when the misinformation or anti-scientific attitude surrounds an issue that enjoys wide expert consensus, such as climate change, vaccines, and GMOs (Merkley 2020; Motta 2017, 2020; Stecula et al. 2020a).

Such a "consensus gap" occurs when significant swaths of the public disagree with scientific consensus. Consensus gaps occur in part due to directional motivated reasoning – people will adopt misinformation to comport with their prior political or cultural predilections (Kunda 1990; Miller et al. 2016). Such motivated reasoning is more likely among those who are politically interested, as increased knowledge or awareness not only makes people more aware of where they stand politically and socially, but also helps them link the misinformation to their pre-existing tendencies (Kahan 2012; Schaffner and Luks 2018). After all, individuals must hear about the misinformation and its links; those who are more politically interested are more likely to seek biased news sources and other information (Scheuefele and Krauss 2019).

For instance, the vast majority of scientific experts agree that the global temperature has increased in the past century due to human actions, including the burning of fossil fuels and CO_2 (Cook et al. 2016). The most prominent characteristic of climate change skeptics is that they identify as Republican or politically right-leaning because of widespread climate change denial by Republican elites (Mooney 2005). In addition, climate change skepticism has been linked to several demographic variables, including born again or Evangelical Protestantism, gender, African American race, Hispanic ethnicity, education, age, being in the South, rurality, and family income (Evans and Feng 2013; Krosnik et al. 2006).

Other consensus gaps occur regarding vaccines and GMOs. One of the most persistent pieces of science and health related misinformation endorsement is the belief that vaccines cause autism, despite widespread agreement among medical experts that vaccines do not cause autism (Lewandowsky et al. 2012). Similarly, most scientists also agree that genetically modified organisms (GMOs) – or, more specifically, genetically modified food – are safe for consumption. Yet, only 37% of adults think GMOs are safe to eat (Funk et al. 2015; McFadden 2016). Skepticism of GMO safety and vaccine misinformation endorsement are less politically aligned, compared to climate change skepticism. However, other psychological factors may increase the tendency for motivated reasoning and misinformation adoption, including gender, religiosity, education level, race/ethnicity, disgust sensitivity, and social identification with being anti-vaccine for the vaccine misinformation in particular (Callaghan et al. 2019; McFadden 2016).

As mentioned in more detail in Chapter 3, rurality has been linked with anti-intellectualism. For instance, Ching and Creed (1997), in line with Hofstadter (1963), argue that anti-intellectualism is another component of rural values and identity, not necessarily due to differences in education levels between rural and non-rural areas, but also because intellectuals are *associated* with cities while the rural subject is seen as undereducated and therefore inferior. Rurality is thus associated with having common sense and life experience, versus "book smarts." Similarly, work by Cramer (2012; 2016) notes that rural residents felt disrespected or looked down upon by urban areas and public officials, and were proud of their rural way of life and values, which include hard work, slower pace of life, and common sense (as opposed to intellectualism or advice from experts). Cramer concludes that this resentment manifests itself as anti-urban resentment, however, it does appear to be particularly directed against experts. Such out-group resentment and anger against experts has been found in other sociological studies of rural areas, with the out-group foils being urban residents, professionals, experts, and the federal government (Hochschild 2016; Wuthnow 2019). These studies on rural identity, however, have not tested whether such rural anti-intellectualism exists nationally. They also have not explored other implications of rural identity being linked with anti-intellectualism, such as attitudes toward health and science policy. Anti-intellectualism could therefore help explain why rural areas tend to be less supportive of science-backed policy in health, such as during the COVID-19 pandemic (Callaghan et al. 2021), environment (Hochschild 2016), and so on.

In the next several sections, I show how rural social identity is linked with anti-intellectualism and therefore with attitudes toward health and science.

Cross-Sectional Analysis and Results

I first begin my analysis by looking at cross-sectional survey data from Study 3 (Lucid), which will be verified using ANES (Study 7) data below. Technical information about these samples can be found in the chapter appendix and in Chapter 2.

The first variable I operationalize in the Study 3 data is rural residency. There are various ways to define and measure these terms, and decades of academic research by sociologists, demographers, geographers, and other scholars have debated the best way to do so (Hart et al. 2005; Miller and Luloff 1981; Nemerever and Rogers 2021). Researchers often use definitions and quantitative scales created by government agencies based on objective criteria, such as population density, population size, and distance from metropolitan centers. These include measurements such as the Rural-Urban Commuting Area Codes ("RUCA"), which are based on Census tracts and are defined according to metropolitan centers or small-town cores (based on population density), and the percent of the population that commutes to such cores. I use RUCA codes as an objective measure of rurality. The chapter appendix contains more information on defining and measuring "rural" and "urban", as well as information about the categories used in the RUCA measure. I then collapse the measure into a binary metro (designations 1-3) and non-metro (designations 4-9), which is how the Census collapses the RUCA codes into a binary metro/non-metro variable.

To measure subjective rural self-identification, respondents were asked first whether or not they grew up in a rural area (response options were "yes" or "no"). Then they were asked if they live in a rural area now (response options were again "yes" or

"no"). The correlation between a current metro resident according to RUCA codes and a current self-identified rural resident is 0.33. To measure rural identity strength, I again use the adapted partisan identity strength scale by Huddy and colleagues (Huddy 2001; 2013; Huddy et al. 2015). Respondents were only given the rural identity strength questions if they said that they either grew up in a rural area, or if they currently live in a rural area (*N = 486*). The scale reliability coefficient of the five items is 0.90.

The anti-intellectualism measure comes from Oliver and Rahn's (2016) populism scale. This is a common way to measure anti-intellectualism (such as Motta 2018) and uses three items. The first asks how much respondents put trust in the wisdom of ordinary people rather than in experts. The second asks how much they agreed that, when it comes to really important questions, scientific facts do not help very much. Finally, respondents indicate how much they agreed that ordinary people can really use the help of experts to understand complicated things like science (reverse-coded). Response options for all three are a seven-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree". The scale reliability coefficient of these three measures is 0.44.

To separate anti-intellectualism from populism, I also control for anti-elitism in politics, which is the second part of the Oliver and Rahn (2016) scale. I use four questions asking respondents how much they agree or disagree that 1) people like me don't have much say in what government does, 2) politics usually boils down to the struggle between the people and the powerful, 3) the system is stacked against people like me, and 4) politics is ultimately a struggle between good and evil. Exact question wording can be found in the chapter appendix. Again, the response options are seven-

point scales ranging from strongly agree to strongly disagree. The scale reliability coefficient of these four measures is 0.43.

The dependent variable is vaccine misinformation endorsement, specifically, the belief that vaccines cause autism. This has been a significant and widespread piece of misinformation in health and science in recent years (Lewandowsky et al. 2012). Respondents were given the question, "Can vaccines administered to children at young ages cause them to become autistic?" The question had four possible response options: "they definitely cannot," "they probably cannot," "they probably can," and "they definitely can." Then, I recoded the responses into a binary variable, with zero meaning that vaccines definitely or probably do not cause autism, and with one indicating that vaccines definitely or probably cause autism.

The analysis also includes demographic control measures that could account for factors driving the link between rural identification and anti-vaccine attitudes, and are based on what previous research has found to predict anti-vaccine misinformation endorsement. These include age (continuous variable), gender (binary with female = 1), race/ethnicity (a binary variable for Black and another for Hispanic), education level (seven-point scale), household income (24-point scale), party identity strength (7-point scale), and evangelical (binary with evangelical or born-again Christian = 1).

To test the chapter argument, I employ OLS regressions to first show that anti-intellectualism predicts rural identity strength, controlling for other factors. Next, I show that rural residency using an objective measure (RUCA codes) does not predict vaccine misinformation endorsement in a logit model. I then include a measure of rural identity strength, which should significantly and positively predict vaccine misinformation

endorsement. Finally, I add anti-intellectualism into the model. If anti-intellectualism mediates the relationship between rural identity and vaccine misinformation, both rural identity and anti-intellectualism should positively and significantly predict the outcome measure, but the coefficient for rural identity should be diminished.

Table 6.1 below shows the relationship between anti-intellectualism and rural social identity strength for rural identifiers; this relationship is positive and statistically significant in both the bivariate model and in the model with control variables (Models 1 and 2). The relationship between rural social identity strength and the populist anti-elitism measure is not statistically significant; this is essentially an expanded model and analysis from that in Chapter 3. Furthermore, it is notable that Models 3 and 4 indicate that anti-intellectualism is not significantly predicted by objective rural residency.

Table 6.1*: Predicting rural social identity strength for rural respondents only, Lucid 2019 non-experimental data.*

	(1) Anti-Intellectualism	(2) Anti-Intellectualism	(3) Anti-Intellectualism	(4) Anti-Intellectualism	(5) Anti-Intellectualism	(6) Anti-Intellectualism	(7) Populist Anti-Elitism	(8) Populist Anti-Elitism
Rural Social Identity	**0.20*** **	**0.17*** **	-	-	-	-	0.19	-
	(0.03)	**(0.04)**					(0.11)	
Non-Metro Resident (RUCA)	-	-	0.02	-0.01	-	-	-	-
			(0.02)	(0.02)				
Metro Social Identity	-	-	-	-	-0.05	-0.04	-	0.21
					(0.05)	(0.05)		(0.14)
Education	-	0.01	-	-0.05	-	**-0.14***	-	**-0.45***
		(0.05)		(0.04)		**(0.07)**		**(0.19)**
Income	-	-0.00	-	-0.02	-	-0.04	-	-0.21
		(0.04)		(0.03)		(0.05)		(0.14)
Party ID	-	**0.08****	-	**0.09*****	-	**0.08***	-	**-0.34*****

		(0.03)		**(0.02)**		**(0.04)**		**(0.10)**
Age	-	-0.01	-	-0.04	-	-0.05	-	**-0.33***
		(0.04)		(0.03)		(0.06)		**(0.15)**
Gender	-	-0.01	-	-0.01	-	0.00	-	0.02
		(0.02)		(0.02)		(0.03)		(0.07)
Black	-	0.05	-	0.00	-	-0.05	-	-0.18
		(0.03)		(0.03)		(0.04)		(0.11)
Hispanic	-	0.01	-	0.02	-	0.04	-	-0.05
		(0.03)		(0.03)		(0.04)		(0.09)
Evangelical	-	**0.05****	**-**	**0.09*****	**-**	**0.11*****	-	**0.20***
		(0.02)		**(0.02)**		**(0.03)**		**(0.09)**
Constant	**0.31*****	**0.26*****	**0.41*****	**0.39*****	**0.42*****	**0.48*****	**1.23*****	**1.76*****
	(0.02)	**(0.05)**	**(0.01)**	**(0.03)**	**(0.03)**	**(0.06)**	**(0.07)**	**(0.15)**
r2	0.09	0.15	0.00	0.10	0.01	0.13	0.01	0.15
N	491.00	431.00	819.00	728.00	327.00	297.00	491.00	297.00

*OLS regression model results. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

Rural social identity strength should also be positively associated with misinformation endorsement. Table 6.2 below shows that rural identity strength significantly and positively predicts a greater chance of endorsing vaccine misinformation (Model 1). This relationship is attenuated – i.e., the effect size is lowered – but still significant by the introduction of anti-intellectualism in the model, as would be expected (Model 2). Furthermore, being a current non-metro resident is not statistically significant in any model, including Model 3 with non-metro residency predicting vaccine misinformation endorsement.

Table 6.2: *Predicting vaccine misinformation endorsement using the non-experimental Lucid data.*

	(1) Vax Misinfo. Endorsement *Self-identified rural or grew up rural*	(2) Vax Misinfo. Endorsement *Self-identified rural or grew up rural*	(3) Vax Misinfo. Endorsement *All respondents*

Non-Metro Res. (RUCA)	0.88	0.93	1.00
	(0.24)	(0.26)	(0.23)
Rural ID Strength	**3.98*** **	**2.54** **	-
	(1.78)	**(1.19)**	
Anti-Intellectualism	**-**	**13.56*** **	**-**
		(9.31)	
Education Level	1.27	1.30	1.10
	(0.71)	(0.75)	(0.48)
Income Level	0.57	0.53	**0.41***
	(0.27)	(0.26)	**(0.15)**
Party ID	**1.73***	1.42	**1.96** **
	(0.55)	(0.46)	**(0.48)**
Age	**0.12*** **	**0.12*** **	**0.11*** **
	(0.06)	**(0.06)**	**(0.05)**
Gender	**0.56** **	**0.56** **	**0.62** **
	(0.13)	**(0.13)**	**(0.11)**
Black	**2.45** **	**2.21** **	1.37
	(0.92)	**(0.85)**	(0.39)
Hispanic	1.23	1.26	1.48
	(0.39)	(0.41)	(0.34)
Evangelical	**1.56***	1.37	1.80**
	(0.36)	(0.33)	(0.33)
Political Interest	0.81	0.88	1.16
	(0.34)	(0.37)	(0.37)
Constant	0.31	**0.13*** **	0.67
	(0.19)	**(0.08)**	(0.28)
Pseudo r2	0.12	0.15	0.09
N	426.00	426.00	720.00

*Logit models, odds ratios shown. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

ANES Data Analysis and Results

I also use data from the 2019 ANES Pilot study (Study 7) to further build evidence for the chapter's argument. Again, more information on this data set can be found in Chapter 2, as well as Table A6.4 in this chapter's appendix.

Once again, rural residency in the ANES data is measured according to whether the respondent said that they grew up in a rural area or currently live in a rural area. Rural identity strength is measured according to how important the respondent feels being from a rural area is to them, and is measured using a three-part question (ANES wording based on Munis 2020). Respondents were first asked where they currently live, and then they were asked where they grew up. Respondents could select "rural area," "small town," "suburb," or "city." Based on this response, they were then asked how important being a person from this place is to their identity, with five possible responses ranging from "not at all important" to "extremely important". The three-item anti-intellectualism measure in the ANES data set is the same as the one in the Lucid study above. The scale reliability coefficient of these three items is 0.71.

The main dependent variable of this study is an anti-science misinformation endorsement scale. This variable is a count variable that ranges from zero (no misinformation endorsement) to three (endorses all three pieces of misinformation on GMOs, global warming, and vaccines). The first misinformation endorsement dimension is the same as the one from study one: whether or not the respondent indicates that vaccines cause autism. The measure used is a combination of two variations of question wordings; half of the respondents received the first question wording, while the other half received the second question wording. The first group was asked whether they thought vaccines cause autism or do not cause autism. The second group was asked whether they thought that scientific consensus shows that vaccines cause or do not cause autism.

The second misinformation endorsement dimension is a binary of whether or not the respondent believes the global temperature has or has not increased over the past 100

years. Finally, the third misinformation endorsement dimension is measuring misinformation relating to GMOs. Like the vaccine-autism misinformation questions, the GMO misinformation measure used is a combination of two variations of question wordings; half of the respondents received the first question wording, while the other half received the second question wording. The first group was asked whether they thought GMOs are safe or not safe to eat. The second group was asked whether they thought that scientific consensus shows that GMOs are safe or not safe to eat.

This dependent variable will be analyzed according to the combined count measure, as well as for each sub-measure (see chapter appendix, Tables A6.9 and A6.10). In the entire sample, 16% said they believe vaccines cause autism (14%), or that scientists believe that vaccines cause autism (17%). Of those asked, 50% said they believe GMOs are unsafe and, for those asked the alternative question, 43% said scientists believe GMOs are unsafe. For all respondents, 26% said global temperatures are not rising. I again include the same demographic control measures that could account for factors driving the link between rural identification and anti-science attitudes, though I also include binary variables for region with East = 0 and South, Midwest, and West = 1 for each of their respective variables.

Using OLS regressions I show that rural identity importance positively and significantly predicts anti-intellectualism, controlling for other factors. First, I predict anti-intellectualism using the place identity scale by rural, small town, suburb, and city in an interactive model (Table 6.3). The results find that social identity for rural residence, measured via importance of rurality to identity, is positively and significantly correlated with anti-intellectualism. Other place residencies do not have significant relationships

between identity and anti-intellectualism. Additionally, rural identity importance correlates with anti-intellectualism at 0.12 for rural self-identifiers only, while the place identity importance for all respondents is 0.05.

Table 6.3: *Predicting anti-intellectualism for rural identity importance, compared to place identity importance for other areas, ANES data.*

	(1) Anti-Intellectualism
Education Level	**-0.12*** **
	(0.02)
Income	**-0.05** **
	(0.02)
Party ID	**0.27*** **
	(0.01)
Age	**-0.09*** **
	(0.02)
Female	**0.02** **
	(0.01)
Black	**0.06*** **
	(0.02)
Hispanic	**0.03***
	(0.02)
Place Identity (Importance)	-0.03
	(0.03)
Live in city	-0.02
	(0.02)
Live in suburb	-0.01
	(0.02)
Live in small town	-0.01
	(0.02)
Live in rural/country	0.04
	(0.04)
Suburb x Place ID	-0.01
	(0.05)
Small Town x Place ID	**0.08***
	(0.04)
Western state	0.02
	(0.01)

Southern state	0.01
	(0.01)
Midwestern state	-0.00
	(0.01)
Constant	**0.43*** **
	(0.02)
r2	0.25
N	2478.00

*OLS regression model results. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

Next, Table 6.4 displays the results for how many of the three anti-science misinformation dimensions respondents endorsed, for subjective rural respondents only. Model 1 shows a positive and significant bivariate relationship between rural identity importance and the number of anti-science misinformation endorsements, as expected by *H2a*. Further, Model 2 shows that this relationship holds controlling for a variety of variables often cited as also predicting science and health misinformation. Finally, Model 3 shows that rural identity importance is still positive and significant, even with anti-intellectualism included. Notably, the coefficient of rural identity importance and anti-science endorsement decreases between Models 2 and 3 when anti-intellectualism is added; this is to be expected if anti-intellectualism mediates the relationship (*H2b*). Further, similar analyses replacing the anti-science count dependent variable with each individual dimension (vaccines, GMOs, and global warming) are found in the chapter appendix, Tables A6.9 and A6.10.

Table 6.4: *Predicting anti-science endorsement count scale (vaccine, global warming, and GMOs), using weighted ANES data, for current or grew up rural residents only.*

	(1) Anti-Science Endorsement	(2) Anti-Science Endorsement	(3) Anti-Science Endorsement

Rural ID Importance	**0.41*** **	**0.27** **	**0.23** **
	(0.10)	**(0.11)**	**(0.11)**
Anti-Intellectualism	-	-	**1.08*** **
			(0.17)
Education Level	-	0.05	0.15
		(0.14)	(0.14)
Income	-	**-0.56*** **	**-0.54*** **
		(0.20)	**(0.20)**
Party ID	-	**0.52*** **	**0.34*** **
		(0.10)	**(0.10)**
Age	-	0.00	0.22
		(0.18)	(0.17)
Female	-	0.04	0.05
		(0.07)	(0.07)
Black	-	**0.21***	**0.22** **
		(0.12)	**(0.11)**
Hispanic	-	0.13	0.05
		(0.14)	(0.15)
Born Again Christian	-	**0.24*** **	**0.16** **
		(0.08)	**(0.07)**
Political Interest	-	-0.03	0.03
		(0.12)	(0.11)
Midwest	-	-0.06	-0.06
		(0.12)	(0.12)
South	-	-0.09	-0.11
		(0.11)	(0.11)
West	-	-0.01	-0.02
		(0.12)	(0.12)
Constant	**-0.22*** **	**-0.41** **	**-1.03*** **
	(0.06)	**(0.20)**	**(0.21)**
N	889.00	738.00	738.00

*Poisson models used due to a count dependent variable. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

Experimental Data and Results (Study 5)

The above analyses and results provide correlational analysis in support of the hypotheses, but they do not evidence for implied causality. Existing studies have found

causal evidence that manipulating the level of anti-elitism in information provided to respondents affects opposition to areas of expert consensus (Merkley 2020). The theory discussed above by SIT suggests the in-group psychological attachment forms first and then out-group affect forms (Branscombe et al. 1999; Huddy 2003). To back up this theoretically assumed causal relationship, I manipulate rural salience for those who self-identify as rural, with anti-intellectualism as the dependent variable.

In early August 2020 (Study 5) and again in December 2020 (Study 6) as validation, I conducted survey experiments using Lucid. For the August 2020 study, 360 individuals consented to take the survey. Information on the survey weight, as well as demographics of the respondents, can be found in Table A6.11 of the appendix. In the experiment all respondents were randomly assigned to one of two conditions: the control condition ("Control") or the treatment condition ("Treatment"). Respondents in the treatment condition (*N = 181*) first received a message saying that they would read an excerpt from a local newspaper on the following screen. Then, respondents viewed a picture of a rural landscape, and were presented with a short 121-word paragraph highlighting the benefits of living in a rural area, and talking about how many younger people who grew up in rural areas are moving back. This treatment is meant to make rural social identification more salient, and to bolster positive in-group sentiment Respondents then answered the dependent variables. Respondents who were assigned to the control condition (*N = 179*) did not receive anything and only answered the dependent variables. See pages 21-23 of the chapter appendix for details and specific treatment wording.

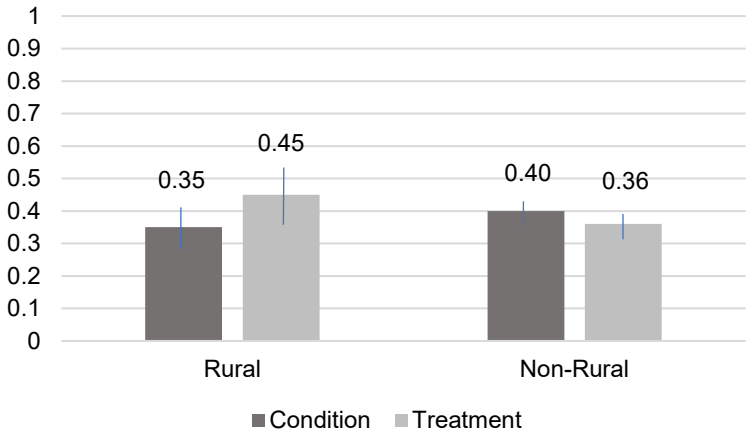
The outcome variable is the anti-intellectualism scale by Oliver and Rahn (2016) measured in the same way the above analyses. The scale reliability coefficient of these three measures is 0.42, with an average interitem covariance of 0.02. Rural identification again includes those who either currently live in rural areas or who grew up in rural areas. Respondents were asked what best describes the community that they grew up in. Those who said "rural" were coded as rural. Then, respondents were asked what best describes the community they currently live in. Those who said "rural" here were also coded as rural.

To analyze these results, I first compare the anti-intellectualism means for four groups: 1) self-identified rural residents in the control group, 2) self-identified rural residents in the treatment group, 3) self-identified non-rural residents in the control group, and 4) self-identified non-rural residents in the treatment group. I expect that the mean score in group 2 should be significantly higher (according to a t-test) than the mean score in group 1; this would provide support for rural identity driving anti-intellectualism. Furthermore, to control for other factors, I use OLS regressions predicting anti-intellectualism with an interaction between rural identifier (binary) and experimental condition (treatment = 1, control = 0) that should have a positive and significant coefficient. The controls are the same as those found in the above Lucid analyses.

Figure 6.1 below shows the mean anti-intellectualism scores for rural and non-rural respondents for each condition. Rural respondents in the control group had an average anti-intellectualism score of 0.35 (95% CI = [0.29, 0.41]), while rural respondents in the treatment group had a mean score of 0.45 [95% CI = [0.37, 0.53]). Therefore, the average treatment effect is 0.10 points on the zero to one anti-

intellectualism scale. Although there is slight overlap in the confidence level intervals, neither confidence level interval includes the mean score of the other group. Similar results can be found for the unweighted data; see Figure A6.4 in the chapter appendix for details. A t-test of the means between these two treatment groups for rural respondents rejects the null hypothesis that the means are the same with a probability of 0.04. This is a significant difference in means; exposure to the treatment for rural respondents yielded higher anti-intellectualism scores, on average, compared to those in the control.

Figure 6.1: *Average anti-intellectualism scores by experimental condition and rural self-identification.*



Note: The difference in means is statistically significant at $p < 0.001$ for both the left- and right-hand graphs. Data is weighted; see Figure A6.4 in the chapter appendix for unweighted data. Results for non-rural respondents can also be found in the appendix. 95% confidence intervals shown.

For non-rural respondents, the mean anti-intellectualism score was 0.40 (95% CI = [0.37, 0.43]) for those in the control group and 0.36 (95% CI = [0.32, 0.39]) for those in the treatment group. This time, the means are just barely out of the confidence interval range of the other mean, although for the unweighted data, the confidence intervals overlap (see Figure A6.4 in the chapter appendix). However, a t-test of the means between these two treatment groups for non-rural respondents rejects the null hypothesis that the means are the same with a probability of 0.02. In other words, exposure to the

treatment for non-rural respondents resulted in a very slight *decrease* in anti-intellectualism, compared to the control. Furthermore, these differences remain statistically significant when controlling for a variety of demographic variables. Please see Tables A6.13 and A6.14 in the chapter appendix for more information.

Experimental Data and Results: Replication (Study 6)

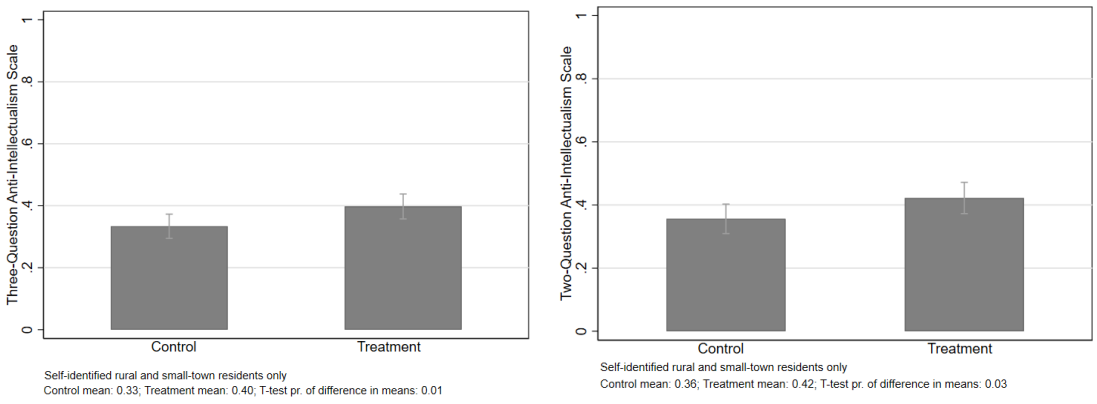
As stated above, I replicate the above experimental analysis to verify the results. The Study 6 survey was conducted via Lucid in December 2020 (*N = 495*). The experiment is very similar to the one in the previous section. Half of the respondents (*N = 237*) were assigned to the above-described treatment meant to increase rural salience. The remaining half of the respondents (*N = 258*) were assigned to the control condition and did not receive any text. All respondents were given the two sets of three questions each to measure anti-intellectualism – the outcome variable – as well as rural identity strength. The rural identity strength here serves as a manipulation check to verify whether the treatment increased rural identity strength. The scale order was randomly presented; question wordings and scale reliability information can be found in the chapter appendix. The rural social identity strength scale has a Chronbach's alpha of 0.90. The anti-intellectualism scale has a Chronbach's alpha of 0.54. Since this is a fairly low value, I repeat all analyses using the two-question anti-intellectualism scale, which has a Chronbach's alpha of 0.71.

This time I also compare objective rural residency with subjective self-identified residency. For objective rural residency, I merge the experimental data with rural-urban commuting area (RUCA) codes based on respondent zip code. Then, I created a binary

variable of non-rural residents similar to that used above. For the second subjective measure, respondents are also asked whether they grew up or currently live a rural area or small town. If they said yes to either question, they are counted as self-identified rural residents.

Using these measures, rural identity strength and anti-intellectualism are moderately and positively correlated for self-identified rural respondents in the control condition only (0.27 for the three-item measure of anti-intellectualism, 0.26 for the two-item measure). Conversely, rural residency is not at all correlated with anti-intellectualism for those in the control group: for the three-item measure of anti-intellectualism, the correlation is -0.05 for the self-described rural residency measure and 0.03 for the RUCA measure. Using the two-item measure of anti-intellectualism, the correlation is -0.10 and -0.01 for the RUCA and self-described measures, respectively. These findings echo findings from above sections and hold when controlling for other factors (see Table A6.20 in the chapter appendix for details). This is again in line with expectations from *H1a.*

Figure 6.2: *Mean Anti-Intellectualism Scores for Rural Respondents Only (self-identified) According to Experimental Treatment Group.*



Note: The left-hand graph shows the mean anti-intellectualism scores using all three anti-intellectualism questions; the right-hand graph shows the mean anti-intellectualism scores using the first two anti-

intellectualism questions due to the third question significantly lowering the scale's Cronbach's alpha score (see above for details). The difference in means is statistically significant at p < 0.001 for both the left- and right-hand graphs. Data is unweighted (see Franco et al. 2017). Results for non-rural respondents can be found in the chapter appendix. 95% confidence intervals shown.

Next, Figure 6.2 above presents the mean anti-intellectualism scores by experimental condition for subjective rural respondents. For the full three-item scale of anti-intellectualism (*left side of graph*), participants in the treatment condition have a mean score of 0.40, while those in the control have a mean score of 0.33; this difference in means is statistically significant ($p > 0.001$). Using only the two-item anti-intellectualism scale yields similar results (*right side*) ($p > 0.001$). The Figure 6.2 results suggest that increasing rural salience for rural respondents increases anti-intellectualism, which is associated with rural identity. The treatment effect, however, does not extend to objective rural residents. The mean three-item anti-intellectualism score for objective rural residents is 0.38 in the control group and 0.42 in the treatment group (0.39 and 0.44 respectively for the two-item anti-intellectualism measure). T-test results show that the difference in means is not statistically significant ($p > 0.31$ for both).

In addition, rural identity strength among the treatment group was higher on average (0.55) than rural identity strength among the control group (0.48). The difference is statistically significant according to a t-test ($p < 0.01$). This serves as a manipulation check to verify that the treatment does indeed manipulate rural identity strength, suggesting that the treatment effectively makes rural identity more salient.

Discussion and Conclusion

The above results suggest support for the main argument: rural identity – particularly positive in-group salience - relates to anti-intellectualism, or a dislike and

distrust of experts and intellectuals as a group. This, in turn, has important consequences for political attitudes, science communication, and public health: anti-intellectualism is associated with health and science misinformation endorsement. Indeed, in the above analyses, rural social identity also predicts such misinformation endorsement. In other words, negative affect toward intellectuals and experts as a group constitutes an out-group for rural identifiers, and this sentiment is particularly linked with rural social group identification rather than just objective rural measurement. Additionally, this dynamic is specific to stronger rural identification and not any place-based affiliation, as suggested by the ANES data.

Unlike in previous chapters, such as in Chapters 3 and 5, this analysis does not explore in-depth the difference between white and non-white rural respondents. This is because theoretically there should not be a racial difference in this relationship, and in Chapter 3, anti-intellectualism is linked with rural social identity for both whites and non-whites. That said, it is unclear whether certain subgroups within rural identifiers, such as racial minorities or regional differences, adopt similar or different values.

The results of this study imply that subjective rural identification matters in certain ways more than objective rural-urban designations; this is because the subjective rural identification encompasses a value or worldview not *necessarily* tied to current location. We must thus be choosey about how we measure rural-urban distinctions. These findings also have implications for the study of misinformation attitudes and for public health, as understanding underlying values and psychology is an important step in gathering more support for science-backed evidence. In the next chapter, I sum up the

findings from Chapters 3-6 and reiterate the main argument and conclusions presented. I also discuss drawbacks and limitations, as well as avenues for future research.

CHAPTER 7: Conclusion

I argue here that rural identity in politics is misunderstood. First, rural identity is not mainly anti-urban sentiment, as I repeatedly demonstrated in Chapter 3. Nor is it interchangeable or contingent on white working class membership or identity, a position I start to develop in Chapter 3 and fully flesh out in Chapter 4. Rather, it is based more on positive in-group affect and symbolic status of the group. Second, the political implications of rural identity mostly hinge on its intermediate status position in society; it sees both lower-status groups, such as immigrants, as well as elites and experts as out-groups to some capacity; such groups are urban-affiliated but not urban *per se* and map onto right-wing populism. Chapter 5, and Chapter 3 to a lesser extent, explore the nature of rural identity in relation to feelings toward immigrants and immigration policy. Most notably, making rural respect salient to rural residents – meant to increase the salience of rural social identification – significantly changes attitudes toward immigrants, while economic or racial demographic changes do not. These results suggest an affective relationship with immigrants as well as an in-group status-based concern. Finally, in Chapter 6 I examine the role of anti-intellectualism being a significant predictor of rural social identity strength, which I argue helps explain health and science misinformation endorsement. Again, this is based on making in-group respect salient, implying that in-group symbolic status is what matters.

Implications of These Findings

One of the biggest takeaways from the findings here is that rural – particularly rural identity - does not mean the white working class. These terms are often used interchangeably or automatically go together. At one point in time, this strong link was

warranted, such as considerations of rural consciousness during the Gilded Age. Such a practice used today however ignores that there are class-based differences and racial differences within rural America. Further, it downplays the significant aspect of symbolic and group-based underpinnings to rural public opinion.

In addition, this study provides a better understanding of why rural areas support populism and outsider candidates by providing an explanation rooted in group-based psychology. In doing so, it covers an element underexplored in previous studies of rural identity (Cramer 2012; 2016), which is negative out-group affect toward immigrants or other lower status groups. This study also sheds light on the urban-rural divide over an important topic – health and science attitudes and misinformation endorsement. Anti-intellectualism is affiliated with rural social identity, thus linking a rural out-group with science-backed policy attitudes, making rural residents more susceptible to science and health misinformation endorsement. The relevance of this has been made painfully clear in light of the COVID-19 pandemic and the disparity in COVID-19 vaccine uptake, among other relevant topics (such as climate change and environmental attitudes).

Finally, my work here also contributes to the literature on how to measure and understand the urban-rural spectrum in political science and beyond. Thinking about rural areas as a social identity, rather than simply living in a rural area, may be a more relevant measure for opinions and behavior than other measures. This is because social identities are strongly held and come with a set of norms, values, and attitudes toward other groups. Further, they are subjectively held, and what may ultimately matter in public opinion is what people think regardless of objective reality.

Limitations and Future Directions

This dissertation has a number of limitations, as well as avenues for future research. Methodologically speaking, I include a number of studies but many of these are cross-sectional – though I do include some experimental evidence and panel data, but more would be helpful - and many studies have a relatively small sample size. The latter has been one of the larger constraints to improving the findings presented here, as I detail a little more below.

One big limitation of this study is investigating the role of race. Although I touched upon it here at various points, limited sample sizes mean that investigating the role of rural identity for non-whites is difficult to do. Much of the analyses in Chapter 3 found that respondent race made little difference in the associations found. This is somewhat contradictory with the findings in Chapter 5, where rural social identity strength was either uncorrelated or positively correlated with pro-immigrant sentiment for black rural respondents. Conversely, rural social identity strength for white rural respondents corresponds to harsher immigrant stances. However, even in these chapters, the non-white analysis either lumped all non-whites together, or only examined black and Hispanic rural respondents due to the small number of other racial groups (Native Americans, Asian Americans, etc.) This is not a sufficient examination of the intersection of race and rurality; an excellent continued course of study would be to examine non-white rural identity further. Such an investigation would also help isolate the rural-specific element to rural identity, rather than confounding elements of rural identity with those of whiteness.

Another is the role of regional or state differences. In preliminary analyses of much of the work done here, regional differences in the rural identity or its relationships

did not seem to occur. However, I am again limited by the sample size of many of these studies. Ideally, state-level analyses of rural identity would be fruitful in understanding how well studies such as Cramer's (2016) or Hochschild's (2016) – which were confined to specific states – would apply cross-nationally.

This study also does not compare a metro social identity to a rural social identity. In preliminary analyses of the present study, it was found that a metro identity does not significantly predict the same things that a rural identity does. I chose to hone in specifically on rural identity here because stronger theoretical expectations associated with it have already occurred. In addition, other scholars are working on studies that examine whether suburban identity exists and is politically relevant in the United States.

Still another limitation – and direction for future research – is the role of partisanship and rural identity. Partisanship has less of a role in rural identity than expected when looking at regression analyses. However, it could still be the case that rural identity is different for Republicans versus Democrats. A little of this was seen in Chapter 5, which found that white rural Democrats behaved differently than others. Again, sample size had some role to play in this omission, as well as space. I have done some initial exploration into partisanship and rural identity using cross-lagged analysis and experimental data, but decided not to include it here because rural identity and partisanship have a relationship that is both conceptually and empirically messy and inconsistent.

Another avenue for future study would be to investigate how rural identity matters politically outside the U.S.; many industrialized and non-industrialized countries have an urban-rural divide, and looking at rurality from a social identity perspective may shed

some light onto these political divisions. Rural identity, as it is conceptualized here and within existing literature in political science, may especially apply to other Western countries that have experienced right-wing populism in recent years (such as Canada, Europe, etc.).

Finally, another area of continued study would be to examine how media maps rural social identity onto the political realm. As noted in Chapter 5, political news often use rural imagery to convey political opinions and policy stances. Such cues would appeal to the in-group as well as help shape what rural in-group political norms are.

This dissertation is meant to further our understanding of rural politics, rural identity, and the urban-rural divide in American politics. As mentioned in the introduction, it has been my aim to present rural identity objectively without falling back on stereotypes of rural areas, whether they be positive (the morally correct victims), negative (backwards bigots), or mixed (the white working class). Though there are many aspects left unexplored, it is hopefully a useful stepping stone to scholars and the field in general to better understanding of rural political behavior and public opinion.

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APPENDICES

CHAPTER 2 APPENDIX: The Urban-Rural Divide and Rural Identification as "the People

Defining and Measuring "Rural" versus "Urban"

It is first important to clarify what I mean by "rural" and "urban." There are various ways to define and measure these terms, and decades of academic research by political scientists, sociologists, demographers, geographers, and other scholars have debated the best way to do so (Hart et al. 2005; Miller & Luloff 1981; Nemerever and Rogers 2021). Researchers often use definitions and quantitative scales created by government agencies based on objective criteria, such as population density, population size, and distance from metropolitan centers. For instance, the U.S. Census Bureau relies on population density to define various categories. The metropolitan categories include urban areas – areas of over 50,000 people - and urban clusters - areas between 2,500 and 50,000 people. Anything not within these designations is rural (Ratcliffe et al. 2016) According to this measurement, around 19% of U.S. residents lived in rural areas in 2010.

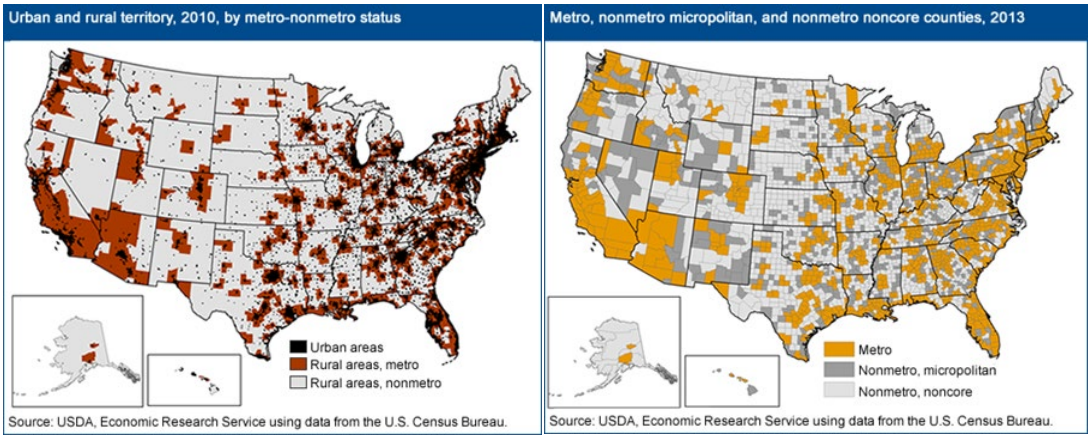
Another way of quantitatively measuring the rural-urban continuum is by using county-level designations developed by the U.S. Department of Agriculture's Economic Research Services. Under this measurement, labor market areas are used to define larger and smaller urbanized centers, with rural areas being areas outside these centers (Cromartie & Parker 2019). This measurement recognizes urbanized counties as densely-populated areas with 50,000 or more people, with another category - outlying counties – defined as commuting counties where at least 25% of the workers living in the county commute to the central urbanized counties. Non-metro counties are areas outside of these

two zones and are further divided into micropolitan areas – settlement clusters between 10,000 and 49,999 people per county – with similar outlying counties. Anything outside of these designations is considered noncore or rural areas. Finally, the Office of Management and Budget also developed a quantitative measure of the rural-urban continuum called Core-Based Statistical Areas, which are based on these other two quantitative measures. Under this measure, central counties are those with at least one urbanized area (as defined by the Census Bureau's coding), and with outlying counties where at least 25% of the workforce commutes to that central county. Anything not part of these urbanized areas are rural, and rural areas are further divided into two levels. Micropolitan areas of counties have 10,000 to 50,000 residents, while everywhere else is considered a non-core county (Mulvaney 2018). Although these different measures have much conceptual overlap between them (see Figure A2.1 for a visual comparison between the USDA and Census definitions), these different taxonomies produce a wide range of what percent of the population is rural. Using 2000 Census data, the U.S. population was anywhere between 10% and 28% of the national total using various definitions (Hart et al. 2005).

In addition, some scholars simply use population density to measure the rural-urban divide (Rodden 2019). Using population density, or the total population divided by the land area of a given geographic unit, it is not an entirely accurate quantitative measure however. For instance, an urban center in a large county could have the same county population density as a county with a handful of small towns in rural Wisconsin (Goodall et al. 1998; Hall et al. 2006).

Another way to look at what constitutes "rural" or "urban" is a subjective definition; these terms are whatever people believe they are, based on a set of individual-level criteria. "Rural" often subjectively means isolation, low population density, or part of a small town, all of which are similar to the underpinnings of the quantitative measures listed above. Agriculture and large tracts of wilderness are also common associations with rural areas, as are certain stereotypes or sociocultural traits (Hart et al. 2005). For example, a rural culture could theoretically exist in an urban area.

Figure A2.1: *Side-by-side comparison of Census Bureau (left) and USDA (right) county designations according to their respective definitions of rural-urban continuums.*



Despite these differences in measuring rural and urban, they all have some commonalities. Rural is seen as encompassing places that are *not* urban or metropolitan, and urban or metropolitan is defined as either dense population centers, or as dense centers of labor and commerce. Therefore, "rural" constitutes lower population density and is associated with a certain type of isolation, either from economic centers or from large numbers of people. Furthermore, suburbs in these quantitative measures are seen as residential areas that are economically dependent on urban centers and are therefore more

associated with urban areas than rural areas. Politically speaking, suburbs have been increasingly voted more like urban areas than rural areas in the past couple decades (Parker et al. 2018).

Given that the focus of much of my argument is based on individual self-identification with rural or urban areas, subjective definitions of rurality matter in the context of this study. Therefore, I rely on subjective expressions of whether someone lives in a rural area or not for individual-level survey data responses relating to self-identification. This has been recommended by other researchers in political science (Nemerever and Rogers 2021). However, I will also use the Rural-Urban Commuting Area ("RUCA") codes developed by the USDA Economic Research Service and the University of Washington, which use Census tract levels ("fips" codes). This measure is useful in differentiating between rural areas that are or are not dependent economically on urban areas, which gives a better sense of not only economic isolation, but also cultural and social isolation. This measure is also very sensitive to demographic shifts, which is significant for determining the correlates of political outcomes. In addition, RUCA codes are easy to aggregate together given the multiple levels of rurality and are easy to convert to larger geographic levels of zip code or county, although this complexity can also be unwieldly at times (Hart et al. 2005). I anticipate that the combination of objective and subjective measures will provide a more rigorous determination of measuring rurality and metropolitan areas, especially since recent work in public health has found that rural self-identification is only moderately correlated with RUCA codes (Onega et al. 2019).

Finally, I at times use the terms “rural” and “urban”/ “metro” as if they were a binary distinction. This is primarily because subjectively, people see a difference between rural and metro as an in-group/out-group or “us versus them” dynamic. However, in practice and even among people subjectively, they will at other times see and measure these as endpoints of a continuum based on the designation of dense population clusters that denote large or small urban centers, with distance from dense population clusters determining the degree of ruralness. This comports with several prominent ways of measuring rural versus urban, as described above. Therefore, I use rural versus non-rural typically with language but note that there is more complexity to the designations.

CHAPTER 3 APPENDIX: Correlates and Characteristics of Rural Identity

Weights for Lucid data

Table A3.1: Demographic characteristics of Lucid samples, weighted.

Variable	Survey 1: Late October 2018	Survey 2: May 2019	Survey 3: August 2019	Survey 4: April 2020	Benchmark	Benchmark Source
Female	52%	52%	52%	51%	51%	CPS 2017
College Degree	33%	35%	32%	34%	34%	CPS 2017
Black	15%	12%	13%	11%	12%	CPS 2017
White (Non-Hispanic)	73%	66%	65%	62%	62%	CPS 2017
Hispanic	15%	14%	15%	15%	18%	CPS 2017
Mean Age	47	45	47	45	46	ANES (Wgt.)
Mean Household Income Range	$55,000 – 59,999	$60,000 - $64,999	$60-64,999	$60-64,999	$ 55-59,999	ANES (Wgt.)
Rural (self-id)	45%	40%	42%	20%	19%	CPS 2017

Non-Metro (RUCA 4-9)		14%	16%		19%	CPS 2017
Democrat	45%	49%	39%	43%	49%	ANES (Wgt.)
Republican	43%	41%	36%	40%	39%	ANES (Wgt.)
Independent	12%	10%	26%	17%	8%	ANES (Wgt.)
N	940	531	825	492		

Note: Comparison of the study data to known population benchmarks. CPS = Current Population Survey (US Census, 2017). ANES = American National Election Study (2016). Although CPS is a better benchmark given its sample size and representativeness, I use weighted ANES data when CPS information is not available (CPS does not ask questions about Party ID). Weights in column two adjust for gender, education, race, age, and income. Party ID is not included in the weighting formula, and is shown only due to the potential interests of those who might use or otherwise consume this data.

Definitions of different RUCA code levels

Primary RUCA Codes, 2010

1 Metropolitan area core: primary flow within an urbanized area (UA)
2 Metropolitan area high commuting: primary flow 30% or more to a UA
3 Metropolitan area low commuting: primary flow 10% to 30% to a UA
4 Micropolitan area core: primary flow within an Urban Cluster of 10,000 to 49,999 (large UC)
5 Micropolitan high commuting: primary flow 30% or more to a large UC
6 Micropolitan low commuting: primary flow 10% to 30% to a large UC
7 Small town core: primary flow within an Urban Cluster of 2,500 to 9,999 (small UC)
8 Small town high commuting: primary flow 30% or more to a small UC
9 Small town low commuting: primary flow 10% to 30% to a small UC
10 Rural areas: primary flow to a tract outside a UA or UC
99 Not coded: Census tract has zero population and no rural-urban identifier information

Rural and Metro Affective Measure Correlations

Table A3.2: *Rural affective response correlations for all respondents, Study 3.*

	Rural: Anger	**Rural: Resentful**	**Rural: Afraid**	**Rural: Proud**	**Rural: Happy**	**Rural: Hopeful**
Rural: Anger	-					

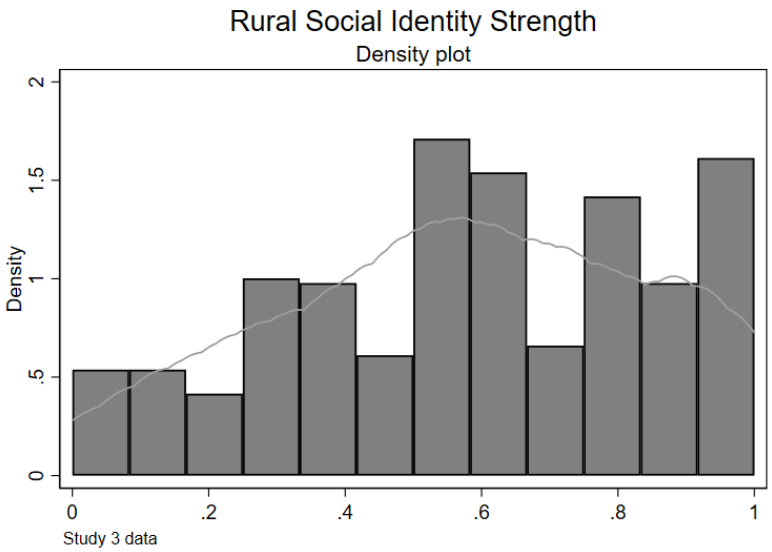
Rural: Resentful	0.70	-				
Rural: Afraid	0.69	0.65	-			
Rural: Proud	0.16	0.21	0.15	-		
Rural: Happy	0.03	0.12	0.07	0.73	-	
Rural: Hopeful	0.04	0.09	0.11	0.65	0.77	-

Table A3.3: *Metro affective response correlations for all respondents, Study 3.*

	Metro: Anger	**Metro: Resentful**	**Metro: Afraid**	**Metro: Proud**	**Metro: Happy**	**Metro: Hopeful**
Metro: Anger	-					
Metro: Resentful	0.68	-				
Metro: Afraid	0.63	0.64	-			
Metro: Proud	0.17	0.22	0.16	-		
Metro: Happy	0.05	0.16	0.13	0.75	-	
Metro: Hopeful	0.04	0.11	0.14	0.70	0.76	-

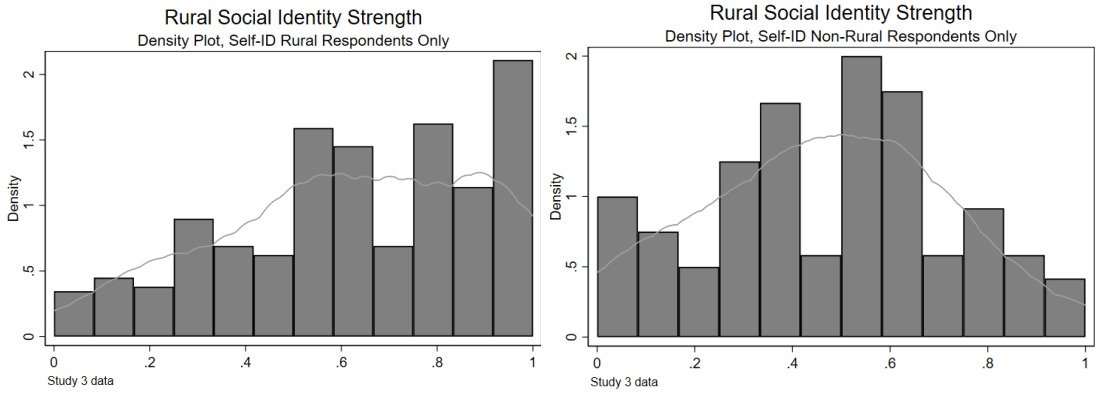
Study 3 Distributions of Rural Identity Strength Measure

Figure A3.2: *Rural social identity strength distribution plot for all respondents, Study 3 data.*



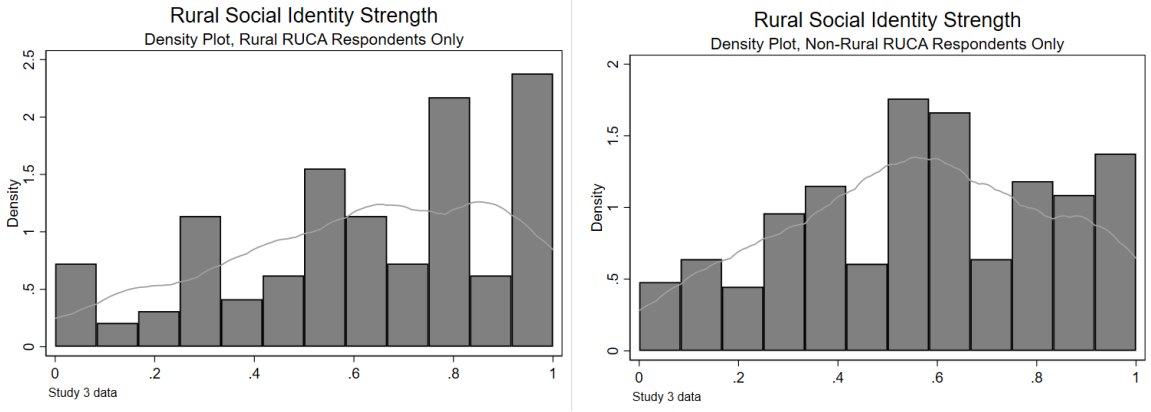
N = 491, mean = 0.58, standard deviation = 0.27

Figure A3.3: *Rural social identity strength distributions for self-identified rural respondents (left) and self identified non-rural respondents (right).*



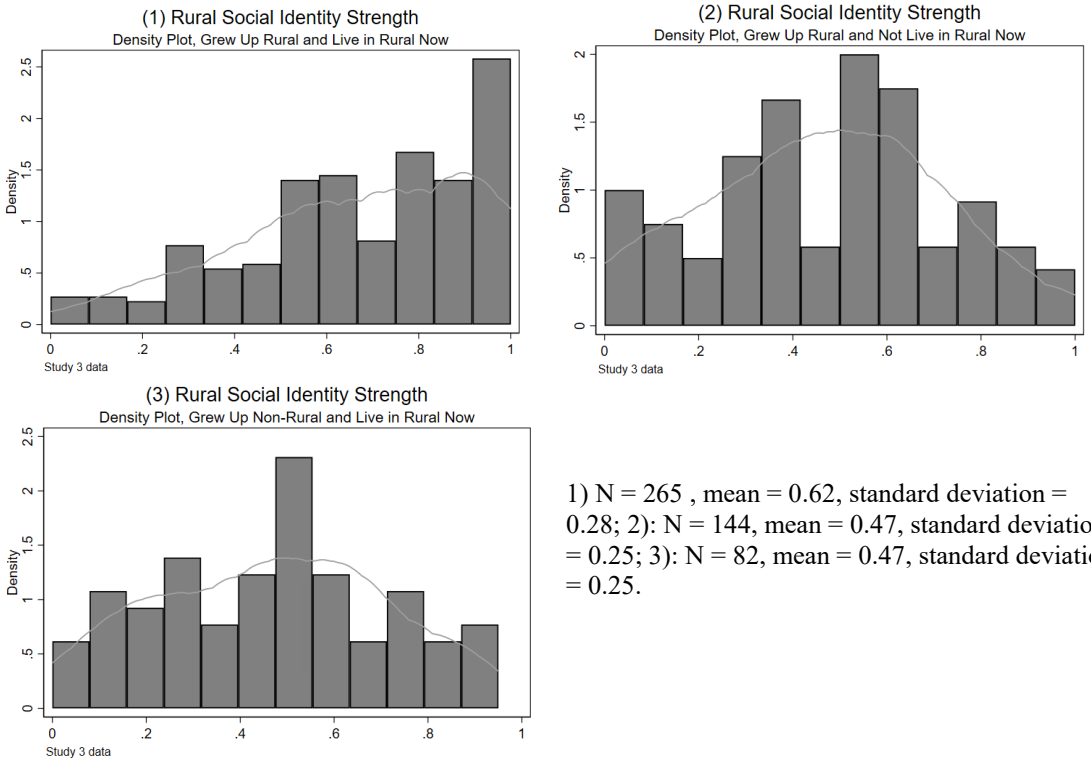
Left: N = 437, mean = 0.62, standard deviation = 0.27; Right: N = 144, mean = 0.47, 0.25. Means are statistically distinct according to a two-tailed t-test between group means where the null hypothesis is the difference in means equaling zero.

Figure A3.4: *Rural social identity strength distributions for rural respondents only (RUCA scores) versus non-rural respondents only (RUCA scores).*



Left: N = 116, mean = 0.62, standard deviation = 0.28; Right: N = 375, mean = 0.56, 0.27. Means are statistically distinct according to a two-tailed t-test between group means where the null hypothesis is the difference in means equaling zero.

Figure A3.5: *Rural social identity strength distributions for those who 1) grew up rural AND live in a rural area now (self-identified), 2) grew up rural only (self-identified), 3) did not grow up in a rural area but live in a rural area now (self-identified)*



1) N = 265 , mean = 0.62, standard deviation = 0.28; 2): N = 144, mean = 0.47, standard deviation = 0.25; 3): N = 82, mean = 0.47, standard deviation = 0.25.

Correlations between Rural Identity Strength and Income/Education Level

Table A3.4: *Rural identity strength and income/education correlations, by rural residency (Study 3 data).*

	Rural resident (Self ID)	Rural resident (RUCA)	Grew up rural (Self ID)	Metro resident (RUCA)	Non-rural resident (Self ID)+
Income	0.08	-0.12	0.02	0.07	0.14
Education Level	0.00	-0.08	-0.05	-0.03	0.05

Note: +Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Sample sizes vary: $105 < N < 406$.

Respondent Distribution of Partisan Identity and Rurality

Table A3.5: *Rural identity strength and partisanship, by rural residency (Study 2 data).*

	Rural resident (Self ID)	Rural resident (RUCA)	Grew up rural (Self ID)	Metro resident (RUCA)	Non-rural resident (Self ID)+
Democrat	76	22	98	210	177
Pure Independent	25	9	28	41	30
Republican	113	53	120	178	144

Note: +Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. A table showing the number of respondents in each cell can be found in the appendix.

Race/ethnicity and Rurality Means and Distributions

Table A3.6: *Number of respondents by rurality and race/ethnicity, Study 2 data.*

	Rural resident (Self ID)	Rural resident (RUCA)	Grew up rural (Self ID)	Metro resident (RUCA)	Non-rural resident (Self ID)+
White	177	74	187	303	245
Black	15	2	22	55	44
Hispanic	21	9	26	54	47

Note: +Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. A table showing the number of respondents in each cell can be found in the appendix.

Table A3.7: *Mean rural identity strength scores by race/ethnicity and rurality, Study 2 data.*

	Rural resident (Self ID)	Rural resident (RUCA)	Grew up rural (Self ID)	Metro resident (RUCA)	Non-rural resident (Self ID)+
White	0.60	0.58	0.59	0.37	0.27
Black	0.51	0.58	0.47	0.26	0.19
Hispanic	0.63	0.49	0.64	0.43	0.35

Question Wording Information (Questions Not Described in the Main Text Only)

Racial Resentment

The racial resentment scale is based on the four racial resentment items found in the American National Election Studies, the wording of which is as follows:

1. Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
2. It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.
3. Over the past few years, blacks have gotten less than they deserve. (R)
4. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class. (R)

Each item has a seven-point response option Likert scale ranging from "Strongly Agree" to "Strongly Disagree." These items were averaged together to create a racial resentment score for each respondent, which was recoded to run from zero to one. The interitem covariance for these four items in the Study 3 data is 0.05, while the scale reliability coefficient is 0.77.

White Identity

The white identity scale is based on the three white identity questions used by Jardina (2019). These three questions are as follows:

1. How strongly do you identify with white people?
    a. Not at all
    b. A little bit
    c. Somewhat
    d. A lot
2. How important is being white to your identity?
    a. Not at all important
    b. Slightly important
    c. Moderately important
    d. Very important
    e. Extremely important
3. How close do you feel to whites in terms of interests?

a. Not at all close
b. A little close
c. Moderately close
d. Very close
e. Extremely close

These items were averaged together to create a white identity score for each respondent, which was recoded to run from zero to one. The interitem covariance for these three items in the Study 3 data is 3.25, while the scale reliability coefficient is 0.44.

Ethnocentrism

The ethnocentrism scale here was based on the one created by Kinder and Kam (2009). Respondents were asked to rate whites and blacks as groups using feeling thermometers that ranged from 0 (cold) to 100 (warm). Then, I subtracted feelings toward blacks from feelings toward whites to create the ethnocentrism scale for white respondents. This scale was then recoded to run from zero to one. The mean for white respondents is 0.52, with a standard deviation of 0.13.

Social Dominance Orientation

The Social Dominance Orientation (SDO) scale is based on several questions converted into an additive index. These questions were asked as followed:

"Please indicate the extent to which you oppose or favor the following statements:

A. An ideal society requires some groups to be on top and others to be on the bottom.
B. Some groups of people are simply inferior to other groups.
C. No one group should dominate in society. *(Reverse coded)*
D. Groups at the bottom are just as deserving as groups at the top. *(Reverse coded)*
E. Group equality should not be our primary goal.
F. It is unjust to try to make groups equal.
G. We should do what we can to equalize conditions for different groups. *(Reverse coded)*
H. We should work to give all groups an equal chance to succeed. *(Reverse coded)*"

Each statement had a six-point response scale, with responses including "strongly opposed," "somewhat opposed," "slightly opposed," "slightly favor," "somewhat favor," "strongly favor."

Authoritarianism

The authoritarianism measure is based on the childrearing index, and is formed by creating an additive scale of these four questions. The questions were phrased as followed (response options in italics):

"Please read each pair of qualities that children might have, and indicate which of the two is the most desirable quality for a child to have:

1. Independence or respect for elders?
    a. *Independence*

b. *Respect for elders*

2. Obedience or self-reliance?
    a. *Obedience*
    b. *Self-reliance*
3. Curiosity or good manners?
    a. *Curiosity*
    b. *Good manners*
4. Being considerate or well-behaved?
    a. *Considerate*
    b. *Well-behaved*"

Respondents received one point each for the following responses: 1.b., 2.a., 3.b., 4.b.

Openness to Experience

A. How well do the following traits describe you?
    a. Love art, music, literature
    b. Little interest in abstract ideas (*reverse coded*)
    c. Original; creative

Need for Cognitive Closure

A. Please state the extent to which you agree or disagree with the following statements.
    a. I don't like situations that are uncertain.
    b. I feel uncomfortable when I don't understand the reason why an event occurred in my life.
    c. I don't like to go into a situation without knowing what I can expect from it.
    d. I don't like to be with people who are capable of unexpected actions.
    e. I dislike it when a person's statement could mean many different things.
    f. I enjoy having a clear and structured mode of life.

    Response options included "Strongly agree," "agree," "somewhat agree," "neither agree nor disagree," "somewhat disagree," "disagree," "strongly disagree." These questions were combined into an additive index.

Income Level (Embedded data from Lucid)

A. What is your current annual household income before taxes?
    [1] Less than $14,999
    [2] $15,000 to $19,999
    [3] $20,000 to $24,999
    [4] $25,000 to $29,999
    [5] $30,000 to $34,999
    [6] $35,000 to $39,999
    [7] $40,000 to $44,999
    [8] $45,000 to $49,999

[9] $50,000 to $54,999
[10] $55,000 to $59,999
[11] $60,000 to $64,999
[12] $65,000 to $69,999
[13] $70,000 to $74,999
[14] $75,000 to $79,999
[15] $80,000 to $84,999
[16] $85,000 to $89,999
[17] $90,000 to $94,999
[18] $95,000 to $99,999
[19] $100,000 to $124,999
[20] $125,000 to $149,999
[21] $150,000 to $174,999
[22] $175,000 to $199,999
[23] $200,000 to $249,999
[24] $250,000 and above

Education Level (Embedded data from Lucid)

A. What is the highest level of education you have completed?
   [1] 3rd Grade or less
   [2] Middle School – Grades 4 – 8
   [3] Completed some high school
   [4] High school graduate
   [5] Other post high school vocational training
   [6] Completed some college, but no degree
   [7] Associate Degree
   [8] College Degree (such as B.A., B.S.)
   [9] Completed some graduate, but no degree
   [10] Masters degree
   [11] Doctorate degree
   *[12] None of the Above

   **Note: Option 12 changed to missing*

Subjective Class, August 2019 data only

A. Which socio-economic class do you consider yourself to be now?
   [1] Poor
   [2] Working Class
   [3] Middle Class
   [4] Upper Class
   [5] Rich

Political Interest

A. How often do you pay attention to politics and elections?
   [1] Always
   [2] Most of the time
   [3] About half the time
   [4] Sometimes
   [5] Never

B. How interested are you in information about what's going on in government and politics?
   [1] Extremely interested
   [2] Very interested
   [3] Somewhat interested
   [4] Slightly interested
   [5] Not at all interested

Party Identity

A. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?
   [1] Republican
   [2] Democrat
   [3] Independent
   [4] Other party

B. *(Only if Answered [2] to question A):* Would you call yourself a strong Democrat or a not very strong Democrat?
   [1] Strong Democrat
   [2] Not very strong Democrat

C. *(Only if Answered [1] to question A):* Would you call yourself a strong Republican or a not very strong Republican?
   [1] Strong Republican
   [2] Not very strong Republican

D. *(Only if Answered [3] or [4] to question A):* Do you think of yourself as closer to the Republican Party or the Democratic Party?
   [1] Democratic
   [2] Republican
   [3] Neither

Symbolic Ideology

A. We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?

[1] Extremely liberal
[2] Somewhat liberal
[3] Slightly liberal
[4] Moderate
[5] Slightly conservative
[6] Somewhat conservative
[7] Extremely conservative

Unemployed

Respondents first answered the following question:

A. What is your current employment status?
    a. Employed full time
    b. Employed part time
    c. Unemployed looking for work
    d. Unemployed not looking for work
    e. Retired
    f. Student
    g. Disabled/On Disability

If respondents answered c or d, they were given a value of "1" for the unemployed variable. If they did not answer c or d, they received a "0" for this variable.

Evangelical

A. Do you consider yourself an evangelical or born again Christian?
    a. Yes
    b. No

Religious Attendance

A. How often do you attend religious services in a given year?
    a. Never
    b. Less than once a year
    c. Several times a year

d. Once a month
e. 2-3 times a month
f. About weekly
g. Once a week
h. Several times a week

How Religious

A. How religious do you consider yourself?
    a. Very religious
    b. Pretty religious
    c. Moderately religious
    d. Slightly religious
    e. Not at all religious

Union Member

A. Are you a member of a union?
    a. Yes
    b. No

Recreational Hunting

A. Do you like to go hunting, recreationally speaking?
    a. Yes
    b. No

Populism Scale
Part 1: Political Anti-Elitism

A. How much do you agree?: People like me don't have much say in what government does. *(Response options: 7-point scale from "strongly agree" to "strongly disagree")*
B. How much do you agree?: Politics usually boils down to a struggle between the people and the powerful. *(Response options: 7-point scale from "strongly agree" to "strongly disagree")*
C. How much do you agree?: The system is stacked against people like me. *(Response options: 7-point scale from "strongly agree" to "strongly disagree")*
D. Fill in the blank. People at the top usually get there because they _____. *(response options: "have talent and hard work" or "had some unfair advantage")*

E. How much do you agree?: Politics is ultimately a struggle between good and evil. *(response options: "have talent and hard work" or "had some unfair advantage")*

Part 2: Anti-Intellectualism/Anti-Expert

A. How much do you agree?: I'd rather put my trust in the wisdom of ordinary people than in the opinions of experts and intellectuals. *(Response options: 7-point scale from "strongly agree" to "strongly disagree")*
B. How much do you agree?: When it comes to really important questions, scientific facts don't help very much. *(Response options: 7-point scale from "strongly agree" to "strongly disagree")*
C. How much do you agree?: Ordinary people can really use the help of experts to understand complicated things like science. *(Response options: 7-point scale from "strongly agree" to "strongly disagree") (Reverse coded)*

Scales recoded so higher values indicate more populist opinions.

Average Scores on Racial Attitude Measures by Population Density Measures

Table A3.8: *Racial attitudes or traits for white respondents, by rural residency (Study 3 data).*

	All white respondents	Rural resident (Self ID)	Rural resident (RUCA)	Grew up rural (Self ID)	Metro resident (RUCA)	Non-rural resident (Self ID)+
Racial Resentment	0.55	0.59	0.61	0.57	0.53	0.59
Ethnocentrism	0.52	0.53	0.53	0.52	0.53	0.52
White Identity	0.64	0.64	0.62	0.63	0.64	0.64
Social Dominance Orientation	0.36	0.37	0.36	0.37	0.36	0.38
Authoritarianism	0.52	0.55	0.55	0.54	0.51	0.56

Note: +Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Ethnocentrism and racial resentment correlation coefficient (for white respondents) = 0.38. Information on the ethnocentrism, racial resentment, white identity, social dominance orientation, and authoritarianism scales can be found in the appendix.

Table A3.9: *Rural identity means, rural residency, and racial attitudes or traits for white respondents (Study 3 data).*

	All white respondents	Rural resident (Self ID)	Rural resident (RUCA)	Grew up rural (Self ID)	Metro resident (RUCA)	Non-rural resident (Self ID)+
Racial Resentment	0.19	0.14	0.06	0.21	0.21	0.17

Ethnocentrism	0.08	0.06	0.05	0.08	0.09	0.04
White Identity	0.25	0.23	0.16	0.28	0.28	0.27
Social Dominance Orientation	0.27	0.23	0.28	0.30	0.27	0.26
Authoritarianism	0.23	0.19	0.26	0.22	0.21	0.16

Note: +Non-rural here means that the respondent said they do not live in a rural area and they did not grow up in a rural area. Ethnocentrism and racial resentment correlation coefficient (for white respondents) = 0.38. Information on the ethnocentrism, racial resentment, white identity, social dominance orientation, and authoritarianism scales can be found in the appendix.

Table A3.10: *Trump support and rural identity strength bivariate logit regressions, Study 3 data, non-white rural respondents only.*

	(1) Trump vote = 1 b/se	(2) Party ID b/se	(3) Symbolic Ideology b/se
Rural Identity Strength	**5.25***	0.27	**0.39***
	(2.09)	(0.18)	**(0.17)**
Constant	**-4.86*****	0.19	**0.20***
	(1.21)	(0.11)	**(0.08)**
r2		0.03	0.12
N	51.00	49.00	51.00

Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.

Table A3.11: *Predicting populism: anti-expert scale (anti-intellectualism), Survey 3 data.*

	(1) Anti-Intellectualism *Rural residents (self-id)*	(2) Anti-Intellectualism *Rural residents (self-id) and white*	(3) Anti-Intellectualism *Rural residents (self-id) and non-white*
Rural ID Str.	**0.19*****	**0.16****	**0.34****
	(0.05)	**(0.05)**	**(0.11)**
Party Identity	-	-	-
Rural ID X Party ID	-	-	-
Constant	0.30*** (0.03)	0.32*** (0.03)	0.30*** (0.07)
r2	0.08	0.05	0.20
N	226.00	175.00	51.00

Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.

Table A3.12: *Predicting populism: anti-political elites scale, Survey 3 data.*

	(1) Populism -Political Elites *Rural residents (self-id)*	(2) Populism -Political Elites *Rural residents (self-id) and white*	(3) Populism -Political Elites *Rural residents (self-id) and non-white*
Rural Identity Strength	0.14	0.10	0.36
	(0.18)	(0.20)	(0.34)
Constant	1.18***	1.19***	1.14***
	(0.09)	(0.10)	(0.15)
r2	0.00	0.00	0.02
N	226.00	175.00	51.00

Standard errors in parentheses. All variables standardized from zero to one. Samples weighted to general population. Significance: * p > 0.05, ** p > 0.01, *** p > 0.001.

Weights for Lucid data

Table A4.1: Demographic characteristics of Lucid samples, weighted.

Variable	Unweighted: May 2019	Weighted: May 2019	Unweighted: August 2019	Weighted: August 2019	Benchmark	Benchmark Source
Female	51%	52%	50%	52%	51%	CPS 2017
College Degree	42%	34%	31%	33%	34%	CPS 2017
Black	11%	13%	12%	13%	12%	CPS 2017
White	73%	67%	79%	77%	69%	CPS 2017
Hispanic	12%	17%	16%	15%	18%	CPS 2017
Mean Age	46	45	47	47	46	ANES (Wgt.)
Mean Household Income Range	$50-54,999	$65-69,999	$55-59,999	$65-69,999	$ 60-64,999	ANES (Wgt.)
Rural (self-id)	43%	41%	42%	42%	n/a	
Non-Metro (RUCA 4-9)	11%	9%	16%	16%	19%	
Democrat (leaners excluded)	41%	41%	41%	41%	34%	ANES (Wgt.)
Republican (leaners excluded)	32%	34%	32%	33%	28%	ANES (Wgt.)
Independent	27%	25%	27%	26%	32%	ANES (Wgt.)
N	506	506	819	819		

Note: Comparison of the study data to known population benchmarks. CPS = Current Population Survey (US Census, 2017). ANES = American National Election Study (2016). Although CPS is a better benchmark given its sample size and representativeness, I use weighted ANES data when CPS information is not available (CPS does not ask questions about Party ID). Weights in column two adjust for gender, education, race, age, and income. Party ID is not included in the weighting formula, and is shown only due to the potential interests of those who might use or otherwise consume this data.

Definitions of different RUCA and RUCC code levels

Primary RUCA Codes, 2010

1 Metropolitan area core: primary flow within an urbanized area (UA)
2 Metropolitan area high commuting: primary flow 30% or more to a UA
3 Metropolitan area low commuting: primary flow 10% to 30% to a UA
4 Micropolitan area core: primary flow within an Urban Cluster of 10,000 to 49,999 (large UC)
5 Micropolitan high commuting: primary flow 30% or more to a large UC
6 Micropolitan low commuting: primary flow 10% to 30% to a large UC
7 Small town core: primary flow within an Urban Cluster of 2,500 to 9,999 (small UC)
8 Small town high commuting: primary flow 30% or more to a small UC
9 Small town low commuting: primary flow 10% to 30% to a small UC
10 Rural areas: primary flow to a tract outside a UA or UC

2013 Rural-urban Continuum Codes

Metropolitan Counties*

Code	Description
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 250,000 population

Nonmetropolitan Counties

Code	Description
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area
7	Urban population of 2,500 to 19,999, not adjacent to a metro area
8	Completely rural or less than 2,500 urban population, adjacent to a metro area
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area
99	Not coded: Census tract has zero population and no rural-urban identifier information

* Note: Metropolitan areas are based on the Office of Management and Budget (OMB) delineation as of February 2013.
Note: The Rural-Urban Commuting Area ("RUCA") codes developed by the USDA Economic Research Service and the University of Washington, which use Census tract levels ("fips" codes). This measure is useful in differentiating between rural areas that are or are not dependent economically on urban areas, which gives a better sense of not only economic isolation, but also cultural and social isolation. This measure is also very

sensitive to demographic shifts, which is significant for determining the correlates of political outcomes. In addition, RUCA codes are easy to aggregate together given the multiple levels of rurality and are easy to convert to larger geographic levels of zip code or county, although this complexity can also be unwieldly at times (Hart et al. 2005).

Question wordings - Lucid

Feeling Toward Trump (DV)

A. Next, we'd like to get your feelings toward some people and groups in the news these days. More positive values (toward the right end) mean you see that person or group more warmly. More negative values (toward the left end) mean you see that person or group more coldly. Zero means you are neutral toward that group or person. Please note that you *must move the slider* in order to record a response.
    a. Donald Trump

Vote for Trump (2016) (DV)

A. Did you vote in the 2016 presidential election?
    a. Yes
    b. No

B. *If yes to A above:* Which presidential candidate did you support in the **2016 election**?
    a. Donald Trump
    b. Hillary Clinton
    c. Gary Johnson
    d. Jill Stein
    e. Other Candidate

Trust in Trump (DV), May 2019 data only

A. Please rate how much you approve or disapprove of the following individuals or groups as a whole.
    a. Donald Trump
        [1] Greatly disapprove
        [2] Moderately disapprove
        [3] Slightly disapprove
        [4] Neither approve nor disapprove
        [5] Slightly approve
        [6] Moderately approve
        [7] Greatly approve

Rural Location (Subjective) Questions

A. Did you grow up in a small town or rural area?

[1] Yes
[2] No

B. Do you currently live in a small town or rural area?
[1] Yes
[2] No

Rural Identity Strength Questions

Respondents only answered these questions if they chose "yes" to either of the rural identification questions above.

Question order was randomly assigned.

A. How much is being from a small town or rural area part of your identity?
[1] A great deal
[2] A lot
[3] A moderate amount
[4] A little
[5] None at all

B. How important is being a small town or rural resident to you?
[1] Extremely important
[2] Very important
[3] Moderately important
[4] Slightly important
[5] Not at all important

C. How well does the term "small town or rural resident" describe you?
[1] Extremely well
[2] Very well
[3] Moderately well
[4] Slightly well
[5] Not well at all

D. When talking about small town or rural residents, how often do you use "we" instead of "they"?
[1] Always
[2] Most of the time
[3] About half the time
[4] Sometimes
[5] Never

E. To what extent do you think of yourself as being a small town or rural resident?
[1] A great deal
[2] A lot

[3] A moderate amount
[4] A little
[5] None at all

Income Level Question (Embedded data from Lucid)

B. What is your current annual household income before taxes?
[1] Less than $14,999
[2] $15,000 to $19,999
[3] $20,000 to $24,999
[4] $25,000 to $29,999
[5] $30,000 to $34,999
[6] $35,000 to $39,999
[7] $40,000 to $44,999
[8] $45,000 to $49,999
[9] $50,000 to $54,999
[10] $55,000 to $59,999
[11] $60,000 to $64,999
[12] $65,000 to $69,999
[13] $70,000 to $74,999
[14] $75,000 to $79,999
[15] $80,000 to $84,999
[16] $85,000 to $89,999
[17] $90,000 to $94,999
[18] $95,000 to $99,999
[19] $100,000 to $124,999
[20] $125,000 to $149,999
[21] $150,000 to $174,999
[22] $175,000 to $199,999
[23] $200,000 to $249,999
[24] $250,000 and above

Education Level (Embedded data from Lucid)

B. What is the highest level of education you have completed?
[1] 3rd Grade or less
[2] Middle School – Grades 4 – 8
[3] Completed some high school
[4] High school graduate
[5] Other post high school vocational training
[6] Completed some college, but no degree
[7] Associate Degree
[8] College Degree (such as B.A., B.S.)
[9] Completed some graduate, but no degree
[10] Masters degree

[11] Doctorate degree
*[12] None of the Above

**Note: Option 12 changed to missing*

Subjective Class Question, August 2019 data only

B. Which socio-economic class do you consider yourself to be now?
   [1] Poor
   [2] Working Class
   [3] Middle Class
   [4] Upper Class
   [5] Rich

Political Interest Questions

C. How often do you pay attention to politics and elections?
   [1] Always
   [2] Most of the time
   [3] About half the time
   [4] Sometimes
   [5] Never

D. How interested are you in information about what's going on in government and politics?
   [1] Extremely interested
   [2] Very interested
   [3] Somewhat interested
   [4] Slightly interested
   [5] Not at all interested

Party Identity Question

E. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?
   [1] Republican
   [2] Democrat
   [3] Independent
   [4] Other party

F. *(Only if Answered [2] to question A):* Would you call yourself a strong Democrat or a not very strong Democrat?
   [1] Strong Democrat
   [2] Not very strong Democrat

G. *(Only if Answered [1] to question A):* Would you call yourself a strong Republican or a not very strong Republican?
   [1] Strong Republican
   [2] Not very strong Republican

H. *(Only if Answered [3] or [4] to question A):* Do you think of yourself as closer to the Republican Party or the Democratic Party?
   [1] Democratic
   [2] Republican
   [3] Neither

Racial Resentment Questions

A. Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
   [1] Agree strongly
   [2] Agree slightly
   [3] Neither agree nor disagree
   [4] Disagree slightly
   [5] Disagree strongly

B. It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.
   [1] Agree strongly
   [2] Agree slightly
   [3] Neither agree nor disagree
   [4] Disagree slightly
   [5] Disagree strongly

C. Over the past few years, blacks have gotten less than they deserve. (R)

   [1] Agree strongly
   [2] Agree slightly
   [3] Neither agree nor disagree
   [4] Disagree slightly
   [5] Disagree strongly

D. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class. (R)

   [1] Agree strongly
   [2] Agree slightly
   [3] Neither agree nor disagree
   [4] Disagree slightly

[5] Disagree strongly

Symbolic Ideology

B. We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?

[1] Extremely liberal
[2] Somewhat liberal
[3] Slightly liberal
[4] Moderate
[5] Slightly conservative
[6] Somewhat conservative
[7] Extremely conservative

Question wordings – ANES

Vote for Trump

Each respondent was randomly assigned to either Q1, Q2, or Q3.

Q1. In 2016, the major candidates for president were Donald Trump for the Republicans and Hillary Clinton for the Democrats. In that election, did you definitely vote, definitely not vote, or are you not completely sure whether you voted?

[1] Definitely voted
[2] Definitely did not vote
[3] Not completely sure

Q2. In every state, the government keeps a record of who votes in an election. In the 2016 presidential election, would the record show that you voted or that you did not vote?

[1] Voted
[2] Did not vote

Q3. We talk to many people who tell us they did not vote. And we talk to a few people who tell us they did vote, who really did not. We can tell they did not vote by checking with official government records. What about you? If we check the official government voter records, will they show that you voted in the 2016 presidential election, or that you did not vote in this election?

[1] Voted
[2] Did not vote

Q4. *[If Q1=1 or Q2=1 or Q3=1 only]* In the 2016 presidential election, who did you vote for? Donald Trump, Hillary Clinton, or someone else?

[1] Donald Trump
[2] Hillary Clinton
[3] someone else

Place and Place Identity Questions:

Q1. Do you currently live in a rural area, small town, suburb, or a city?

[1] I currently live in a rural area
[2] I currently live in a small town
[3] I currently live in a suburb
[4] I currently live in a city

Q2. Growing up, did you mostly live in a rural area, small town, suburb, or a city?

[1] I grew up in a rural area
[2] I grew up in a small town
[3] I grew up in a suburb
[4] I grew up in a city

Q3. How important is being a '[fill]' to your identity?

Fill = [IF Q1 or Q2 <=4] [if Q1=1 or Q2=1 fill="city person"; if Q1=2 or Q2=2 fill = "suburb person"; if Q1=3 or Q2=3 fill = "small town person"; if Q1=4 or Q2=4 fill = "country (or rural) person"]

[1] Not at all important
[2] A little important
[3] Moderately important
[4] Very important
[5] Extremely important

Income Question

Q1.The next question is about [the total income of all the members of your family living here / your total income] in 2018, before taxes. This figure should include income from all sources, including salaries, wages, pensions, Social Security, dividends, interest, and all other income. What was [the total income in 2018 of all your family members living here / your total income in 2011]?

[1] Less than $10,000
[2] $10,000 - $19,999
[3] $20,000 - $29,999
[4] $30,000 - $39,999
[5] $40,000 - $49,999
[6] $50,000 - $59,999
[7] $60,000 - $69,999
[8] $70,000 - $79,999
[9] $80,000 - $99,999
[10] $100,000 - $119,999
[11] $120,000 - $149,999
[12] $150,000 - $199,999
[13] $200,000 - $249,999
[14] $250,000 - $349,999
[15] $350,000 - $499,999
[16] $500,000 or more
*[17] Prefer not to say

**Note: Option 17 changed to missing*

Education Level Question

Q1. What is the highest level of school you have completed or the highest degree you have received?

[1] No HS degree
[2] HS graduate
[3] Some college
[4] Two-year degree
[5] Four-year degree

[6] Post-graduate degree

Political Interest Question:

Q1. Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?

[1] Most of the time
[2] Some of the time
[3] Only now and then
[4] Hardly at all

Party Identity Question

Q1a. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?

[1] Republican
[2] Democrat
[3] Independent
[4] Other party

Q1b. *(Only if Answered [2] to question Q1a):* Would you call yourself a strong Democrat or a not very strong Democrat?

[1] Strong Democrat
[2] Not very strong Democrat

Q1c. *(Only if Answered [1] to question Q1a):* Would you call yourself a strong Republican or a not very strong Republican?

[1] Strong Republican
[2] Not very strong Republican

Q1d. *(Only if Answered [3] or [4] to question Q1a):* Do you think of yourself as closer to the Republican Party or the Democratic Party?

[1] Democratic
[2] Republican
[3] Neither

Racial Resentment Questions

A. Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
   [1] Agree strongly
   [2] Agree slightly
   [3] Neither agree nor disagree

[4] Disagree slightly
[5] Disagree strongly

B. It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.
[1] Agree strongly
[2] Agree slightly
[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

C. Over the past few years, blacks have gotten less than they deserve. (R)

[1] Agree strongly
[2] Agree slightly
[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

D. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class. (R)

[1] Agree strongly
[2] Agree slightly
[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

Symbolic Ideology

A. We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?

[1] Extremely liberal
[2] Somewhat liberal
[3] Slightly liberal
[4] Moderate
[5] Slightly conservative
[6] Somewhat conservative
[7] Extremely conservative

Question wordings – CCES

Location

A. How would you describe the place where you live?

[1] City
[2] Suburb
[3] Town
[4] Rural
[5] Other

Vote Choice

A. In the election for U.S. president, who did you vote for?

[1] Donald Trump
[2] Hillary Clinton
[3] Someone else
[4] I did not cast a vote for president
[5] I do not recall

Symbolic Ideology

A. In general, how would you describe your own political viewpoint?

[1] Very liberal
[2] Liberal
[3] Moderate
[4] Conservative
[5] Very conservative
[6] Not sure

Party Identity Question

Q1a. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?

[1] Republican
[2] Democrat
[3] Independent
[4] Other party

Q1b. *(Only if Answered [2] to question Q1a):* Would you call yourself a strong Democrat or a not very strong Democrat?

[1] Strong Democrat
[2] Not very strong Democrat

Q1c. *(Only if Answered [1] to question Q1a):* Would you call yourself a strong Republican or a not very strong Republican?

[1] Strong Republican
[2] Not very strong Republican

Q1d. *(Only if Answered [3] or [4] to question Q1a):* Do you think of yourself as closer to the Republican Party or the Democratic Party?

[1] Democratic
[2] Republican
[3] Neither

Racial Resentment Questions

A. Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
[1] Agree strongly
[2] Agree slightly
[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

B. It's really a matter of some people not trying hard enough; if blacks would only try harder they could be just as well off as whites.
[1] Agree strongly
[2] Agree slightly
[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

C. Over the past few years, blacks have gotten less than they deserve. (R)

[1] Agree strongly
[2] Agree slightly
[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

D. Generations of slavery and discrimination have created conditions that make it difficult for blacks to work their way out of the lower class. (R)

[1] Agree strongly
[2] Agree slightly

[3] Neither agree nor disagree
[4] Disagree slightly
[5] Disagree strongly

Family Income

A. Thinking back over the last year, what was your family's annual income?

[1] Less than $10,000
[2] $10,000 - $19,999
[3] $20,000 - $29,999
[4] $30,000 - $39,999
[5] $40,000 - $49,999
[6] $50,000 - $59,999
[7] $60,000 - $69,999
[8] $70,000 - $79,999
[9] $80,000 - $99,999
[10] $100,000 - $119,999
[11] $120,000 - $149,999
[12] $150,000 - $199,999
[13] $200,000 - $249,999
[14] $250,000 - $349,999
[15] $350,000 - $499,999
[16] $500,000 or more

Education Level

A. What is the highest level of education you have completed?

[1] No HS
[2] High school graduate
[3] Some college
[4] 2-year
[5] 4-year
[6] Post-grad

Additional Analyses – Part I

Table A4.2: *Predicting self-reported vote for Trump in 2016, for all and only white respondents, with interactions between rural and class variables (using objective rural residency). Replication of **Table 4.1** but with RUCC instead of rural self-identified.*

	(1) Trump Vote 2016 *All Respondents*	(2) Trump Vote 2016 *White Respondents*	(3) Trump Vote 2016 *All Respondents*	(4) Trump Vote 2016 *White Respondents*	(5) Trump Vote 2016 *All Respondents*	(6) Trump Vote 2016 *White Respondents*
Rural Res. (RUCC)	1.37	7.34	1.90	2.99	0.75	1.16
	(2.45)	(11.24)	(1.83)	(2.58)	(0.97)	(1.29)
Education Level	1.43	1.51	-	-	1.43	1.09
	(1.14)	(1.41)			(0.94)	(0.79)
College Degree+	-	-	1.95	2.26	-	-
			(0.94)	(1.39)		
Household Income	0.76	1.12	0.57	0.66	0.65	1.04
	(0.52)	(0.82)	(0.40)	(0.52)	(0.53)	(0.88)
Party ID	**130.45*** **	**138.34*** **	**142.88*** **	**133.74*** **	**138.44*** **	**149.17*** **
	(91.50)	**(125.65)**	**(101.88)**	**(117.57)**	**(102.18)**	**(141.00)**
Symbolic Ideology	1.74	2.08	1.30	1.49	1.75	1.99
	(1.61)	(2.21)	(1.21)	(1.62)	(1.63)	(2.17)
Racial Resentment	**8.66****	**12.55****	**9.89****	**16.31****	**8.31****	**12.48****
	(6.59)	**(11.90)**	**(7.29)**	**(15.20)**	**(6.38)**	**(11.86)**
Black	0.32	-	0.32	-	0.31	-
	(0.23)		(0.23)		(0.23)	
Hispanic	1.43	0.43	1.36	0.45	1.45	0.47
	(0.82)	(0.24)	(0.80)	(0.23)	(0.83)	(0.25)
Male	**2.16***	*2.20+*	**2.35***	**2.42***	**2.16***	*2.13+*
	(0.82)	*(0.99)*	**(0.86)**	**(1.04)**	**(0.81)**	*(0.94)*
Age	3.45	0.53	3.43	0.61	3.43	0.52
	(3.04)	(0.47)	(2.97)	(0.55)	(3.02)	(0.45)
Rural Res. X Education	0.81	0.05	-	-	-	-
	(2.49)	(0.16)				
Rural Res. X College Degree	-	-	0.18	0.08	-	-
			(0.28)	(0.15)		

Rural Res. X Income	-	-	-	-	4.19	2.63
					(13.51)	(8.42)
Pseudo r2	0.50	0.52	0.50	0.51	0.50	0.52
N	463.00	346.00	471.00	352.00	463.00	346.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of logit models; odds ratios shown. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (May 2019) data used.

Table A4.3: *Predicting party identity strength (seven-point), for all and only white respondents, with interactions between rural and class variables. Corresponds to Table 4.1 but with a different dependent variable.*

	(1) Party ID *All Respondents*	(2) Party ID *White Respondents*	(3) Party ID *All Respondents*	(4) Party ID *White Respondents*	(5) Party ID *All Respondents*	(6) Party ID *White Respondents*
Self-ID	0.06	*0.17+*	0.07	**0.13***	**0.11***	**0.13***
Rural Res.	(0.08)	*(0.09)*	(0.05)	**(0.06)**	**(0.05)**	**(0.06)**
Education Level	0.01	0.20	-	-	0.03	*0.16+*
	(0.10)	(0.13)			(0.08)	*(0.09)*
College Degree+	-	-	0.00	0.07	-	-
			(0.05)	(0.06)		
Household Income	0.11	0.01	*0.13+*	0.08	0.14	0.01
	(0.08)	(0.08)	*(0.07)*	(0.08)	(0.11)	(0.12)
Symbolic Ideology	**0.63*** **	**0.66*** **	**0.62*** **	**0.63*** **	**0.63*** **	**0.66*** **
	(0.08)	**(0.08)**	**(0.08)**	**(0.09)**	**(0.08)**	**(0.08)**
Black	**-0.18*** **	**-**	**-0.20*** **	**-**	**-0.19*** **	**-**
	(0.05)		**(0.05)**		**(0.05)**	
Hispanic	-0.07	-0.08	-0.08	-0.11	-0.07	-0.08
	(0.06)	(0.10)	(0.06)	(0.10)	(0.06)	(0.10)
Female	**0.09***	**0.11****	**0.09***	**0.11****	**0.10***	**0.11***
	(0.04)	**(0.04)**	**(0.04)**	**(0.04)**	**(0.04)**	**(0.04)**
Age	-0.04	-0.02	-0.04	-0.02	-0.05	-0.02
	(0.07)	(0.09)	(0.08)	(0.10)	(0.08)	(0.10)
Rural X Education	0.05	-0.08	-	-	-	-
	(0.13)	(0.16)				
Rural X College	-	-	0.08	-0.00	-	-
			(0.08)	(0.10)		
Rural X Income	-	-	-	-	-0.07	-0.01
					(0.13)	(0.14)
r2	0.36	0.36	0.36	0.35	0.36	0.36
N	463.00	346.00	471.00	352.00	463.00	346.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of OLS models. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (May 2019) data used.

Table A4.4: *Predicting party identity strength (seven-point), for rural (subjective) and white respondents, with interactions between rural and class variables. Corresponds to Table 4.2 but with a different dependent variable.*

	(1) Party ID *Rural and White Respondents*	(2) Party ID *Rural and White Respondents*	(3) Party ID *Rural and White Respondents*
Rural Identity Strength	-0.00	0.13	0.10
	(0.14)	(0.10)	(0.13)
Education Level	-0.16	-	0.05
	(0.19)		(0.08)
College Degree+	-	-0.13	-
		(0.14)	
Household Income	-0.06	0.01	-0.11
	(0.09)	(0.11)	(0.22)
Symbolic Ideology	**0.12*** **	**0.11*** **	**0.12*** **
	(0.02)	**(0.02)**	**(0.02)**
Hispanic	**0.04** **	**0.03***	**0.04** **
	(0.01)	**(0.01)**	**(0.01)**
Female	**0.13***	**0.15***	**0.14***
	(0.06)	**(0.06)**	**(0.06)**
Age	-0.01	-0.06	-0.05
	(0.10)	(0.11)	(0.10)
Rural Identity X Education	0.34	-	-
	(0.29)		
Rural Identity X College	-	0.21	-
		(0.25)	
Rural Identity X Income	-	-	0.13
			(0.33)
Constant	-0.02	-0.04	-0.07
	(0.13)	(0.10)	(0.13)
r2	0.45	0.41	0.44
N	168.00	170.00	168.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of OLS models. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (May 2019) data used.

Table A4.5: *Predicting Trump vote in 2016 using ANES data by rural identity strength and class measures for white respondents.*

	(1) Trump Vote 2016 *White Voters*	(2) Trump Vote 2016 *White Voters*	(3) Trump Vote 2016 *White Voters*	(4) Trump Vote 2016 *White Voters*	(5) Trump Vote 2016 *White Voters*	(6) Trump Vote 2016 *White Voters*
Rural/Small Town Importance	**3.85*** **	1.85	**2.49***	1.66	**4.81*** **	1.72
	(1.17)	(0.92)	**(1.22)**	(1.27)	**(2.66)**	(1.56)
Degree (BA/BS)	**0.62***	0.62	-	-	-	-
	(0.17)	(0.28)				
Income	-	0.81	-	0.82	2.52	0.78
		(0.64)		(0.64)	(1.53)	(0.83)
Education Level	-	-	**0.25*** **	0.38	-	**0.41***
			(0.11)	(0.26)		**(0.19)**
Age	-	0.45	-	0.44	-	0.44
		(0.37)		(0.36)		(0.36)
Female	-	0.72	-	0.72	-	0.72
		(0.21)		(0.21)		(0.21)
Party ID	**-**	**226.45*** **	**-**	**236.07*** **	**-**	**236.53*** **
		(128.32)		**(136.00)**		**(136.29)**
Racial Resentment	**-**	**0.02*** **	**-**	**0.02*** **	**-**	**0.02*** **
		(0.01)		**(0.01)**		**(0.01)**
Political Interest	-	0.85	-	0.87	-	0.88
		(0.47)		(0.48)		(0.48)
Rural ID X Degree	0.78	0.88	-	-	-	-
	(0.45)	(0.95)				
Rural ID X Education	-	-	2.19	1.21	-	-
			(1.99)	(1.88)		
Rural ID X Income	-	-	-	-	0.68	1.16
					(0.93)	(2.70)
Pseudo r2	0.04	0.60	0.05	0.60	0.04	0.60
N	728.00	629.00	728.00	629.00	642.00	629.00

Figure A4.3: *Respondent frequency of Trump and non-Trump voters by rural residency (subjective) and college degree attainment, using CCES data (only white respondents).*

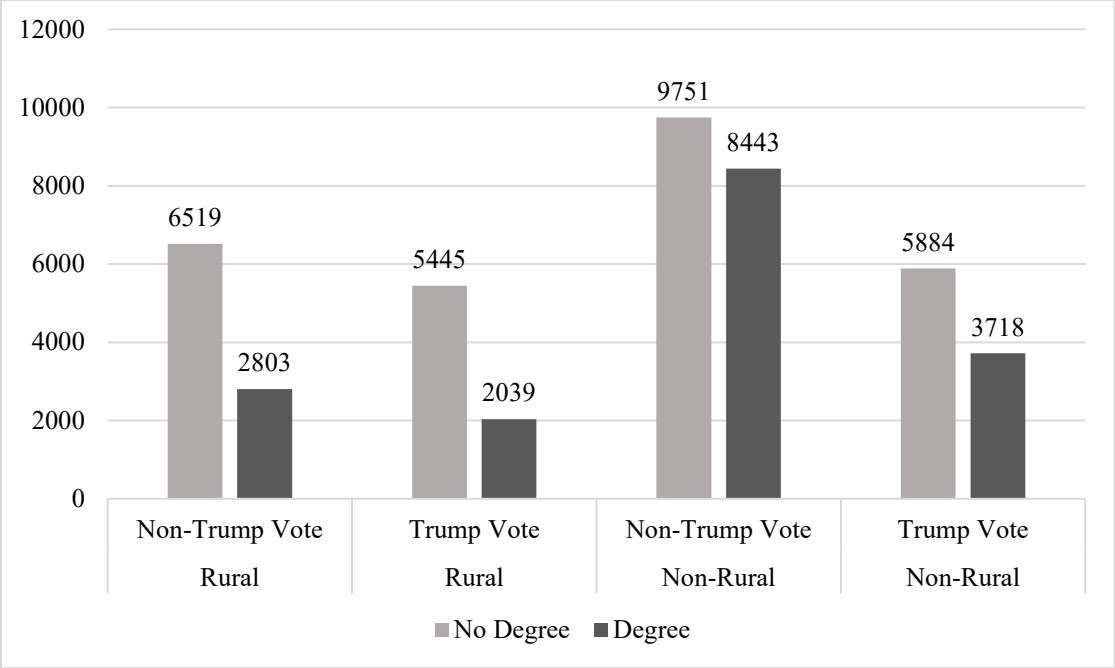


Table A4.6: *Predicting 7-point party identity by rural residency (or rural identity strength) and self-identified class membership, for white respondents only. August 2019 Lucid data.*

	Full Model: Party ID *White respondents*	Without Controls: Party ID *White respondents*	Full Model: Party ID *White respondents*	Without Controls: Party ID *White Respondents*	Full Model: Party ID *White and rural (subjective) respondents*	Without Controls: Party ID *White and rural (subjective) respondents*
Rural Res. (Subj.)	0.10	0.08	-	-	-	-
	(0.09)	(0.09)				
Rural Res. (Obj.)	-	-			*0.23+*	0.11
					(0.12)	(0.12)
Rural Identity Strength	-	-	-0.26	-0.16	-	-
			(0.32)	(0.39)		
Income	-0.04	-	0.01	-	-0.04	-
	(0.08)		(0.11)		(0.07)	
Education Level	*-0.14+*	-	**-0.36*** **	-	*-0.14+*	-
	(0.08)		**(0.10)**		*(0.08)*	
Age	**-0.17****	-	-0.13	-	**-0.17***	-
	(0.07)		(0.11)		**(0.07)**	
Hispanic	-0.06	-	-0.11	-	-0.05	-
	(0.04)		(0.08)		(0.04)	
Evangelical	-0.04	-	-0.02	-	-0.05	-
	(0.04)		(0.06)		(0.03)	

Ideology	**0.69*** **	-	**0.80*** **	-	**0.68*** **	-
	(0.07)		**(0.10)**		**(0.06)**	
Racial Resentment	**0.23*** **	-	0.14	-	**0.25*** **	-
	(0.06)		(0.10)		**(0.06)**	
Political Engagement	0.07	-	0.04	-	0.07	-
	(0.06)		(0.10)		(0.06)	
Working Class	-0.01	0.03	-0.08	-0.07	0.04	0.05
	(0.07)	(0.08)	(0.18)	(0.23)	(0.06)	(0.06)
Middle Class	0.07	0.06	-0.05	-0.08	0.09	0.07
	(0.07)	(0.07)	(0.18)	(0.22)	(0.06)	(0.06)
Upper Class	0.14	0.09	0.29	0.21	**0.19***	0.10
	(0.09)	(0.13)	(0.23)	(0.48)	**(0.09)**	(0.11)
Rich	0.03	0.18	**0.72** **	*0.44+*	0.01	0.04
	(0.21)	(0.19)	**(0.27)**	*(0.25)*	(0.17)	(0.15)
Working Class X Rural (subj.)	0.04	0.11	-	-	-	-
	(0.11)	(0.11)				
Middle Class X Rural (subj.)	-0.04	0.06	-	-	-	-
	(0.10)	(0.11)				
Upper Class X Rural (subj.)	0.09	-0.01	-	-	-	-
	(0.18)	(0.19)				
Rich X Rural (subj.)	-0.14	-0.32	-	-	-	-
	(0.31)	(0.27)				
Working Class X Rural (obj.)	-	-	-	-	-0.12	0.15
					(0.14)	(0.13)
Middle Class X Rural (obj.)	-	-	-	-	-0.19	0.08
					(0.12)	(0.13)
Upper Class X Rural (obj.)	-	-	-	-	**-0.46***	-0.39
					(0.19)	(0.27)
Rich X Rural	-	-	-	-	0.00	0.00
					(.)	(.)
Working Class X Rural ID Str.	-	-	0.35	0.37	-	-
			(0.35)	(0.44)		
Middle Class X Rural ID Str.	-	-	0.32	0.47	-	-
			(0.35)	(0.44)		
Upper Class X Rural ID Str.	-	-	-0.21	0.45	-	-
			(0.50)	(0.98)		
Rich X Rural ID Str.	-	-	**-1.26** **	*-0.75+*	-	-
			(0.39)	*(0.42)*		
Constant	0.14	0.41***	0.16	0.50*	0.16	0.44***
	(0.12)	(0.06)	(0.11)	(0.20)	(0.11)	(0.05)
r2	0.47	0.04	0.57	0.08	0.46	0.04
N	567.00	593.00	169.00	172.00	567.00	593.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Results are of OLS models. Results in bold show statistical significance at p < 0.05; results in italics show marginal statistical significance at 0.10 > p > 0.05. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks. Lucid (August 2019) data used.

Figure A4.4: *Interaction Graph for Model 5, Table A4.6 above.*

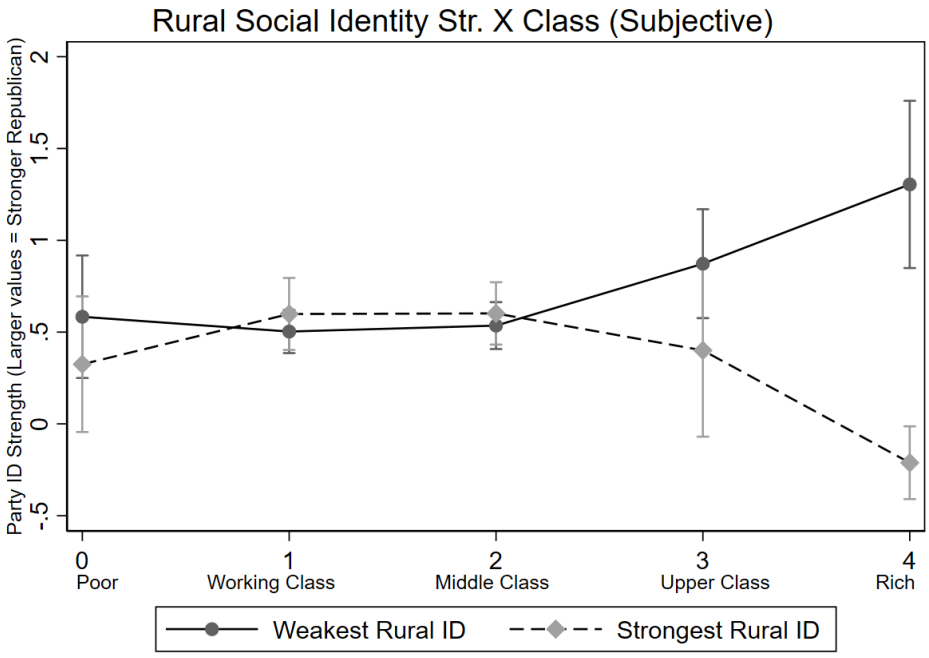
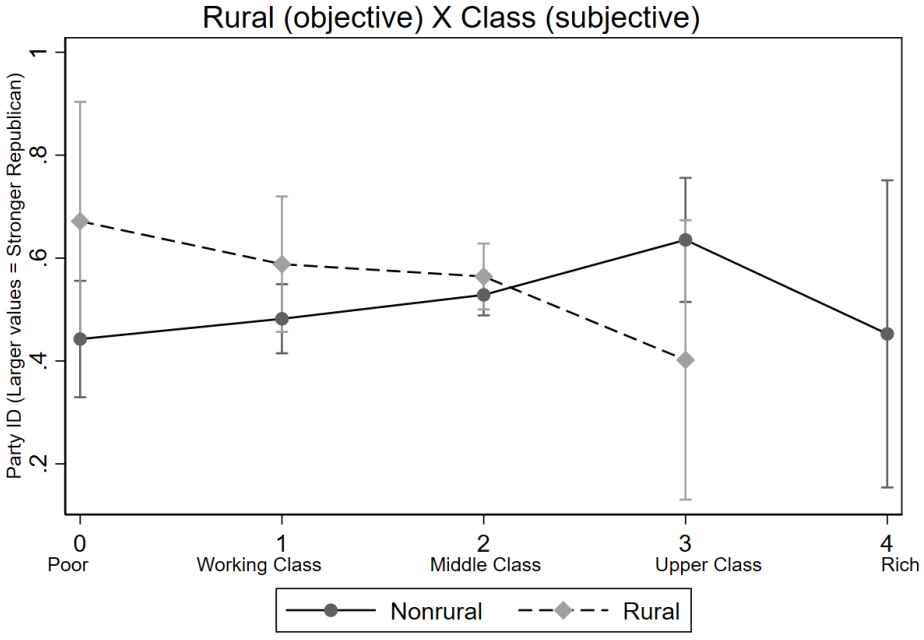


Figure A4.5: *Interaction Graph for Model 3, Table A4.6 above.*



Additional Analyses – Part II

Table A4.7: *Predicted change in percent of vote share for the Republican presidential candidate between 2008 and 2016, by metro and non-metro counties and change in median county income, among high-white population counties. Interaction's marginal effects shown in Figure 3.7.*

	(1) Vote Share Change *High White-Population Counties*
Rural=1	**0.19*** **
	(0.02)
Income Change	**0.30*** **
	(0.04)
Rural X Income Change	**-0.36*** **
	(0.05)
Constant	-0.04*
	(0.02)
r2	0.09
N	1423.00

Note: only for counties with percent of county white population 87% of total or higher. $p < 0.10$, * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$, standard errors in parentheses. Results from OLS regression models. Results in bold show statistical significance at $p < 0.05$; results in italics show marginal statistical significance at $0.10 > p > 0.05$. All variables (independent and dependent) have been recoded from zero to one.

Additional Analyses – Part III

Table A4.8: *Mixed effects multilevel model results with interaction between rural identity strength, local income change, and rural residency (self-identified in Model 1 and RUCA in Model 2). Lucid data (April 2019).*

	(1) Trump Vote 2016 *All Respondents*	(2) Trump Vote 2016 *All Respondents*
Local Income Change	0.96	3.03
	(5.08)	(4.96)
Rural Social Identity Str.	-0.95	6.68
	(6.48)	(4.13)
Income Change X Rural Id. Str.	3.34	-10.00
	(13.14)	(8.30)
Rural (subj)	-6.84	-
	(5.24)	
Rural (sub) X Income	14.51	-
	(10.75)	
Rural (sub) X Rural Id. Str.	**19.10***	-
	(9.24)	
Rural (sub) X Rural Id. Str. X Income	*-35.78+*	-
	(18.89)	
Rural (objective)	-	*-18.51+*
		(9.55)
Rural (objective) X Income	-	**39.89***
		(20.16)
Rural (objective) X Rural Id. Str.	-	**33.99***
		(15.38)
Rural (objective) X Rural Id. Str. X Income	-	**-68.74***
		(32.31)
Constant	*-1.61+*	*-2.73+*
	(2.52)	*(2.46)*
Level 2		
var(_cons[zip])	3.12***	3.32***
	(1.01)	(1.07)
N	349.00	349.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Logit models. Results in bold show statistical significance at p < 0.05, results in italic show statistical significance at 0.10 > p > 0.05, results in regular font show statistically insignificant results. Models do not include control variables. All variables (independent and dependent) have been recoded from zero to one.

Figure A4.6: *Interaction between rural identity strength, local income change, and RUCA rural residency. Details in Table A4.8, Model 2.*

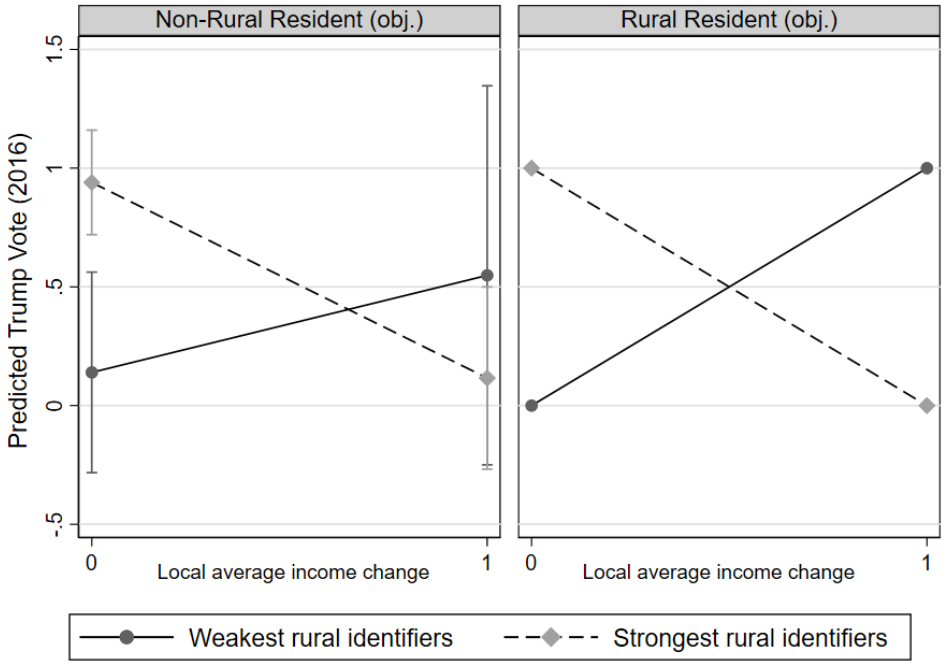


Figure A4.7: *Interaction between rural identity strength and local income change from Table 4.9, Model 2.*

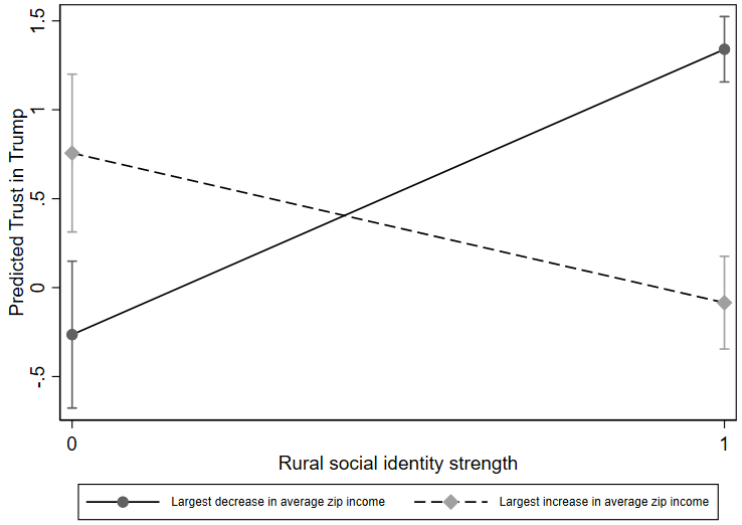


Table A4.9: *Mixed effects models predicting party identity strength and symbolic ideology, with weighted data, May 2019 Lucid data.*

	(1) Party Identity	(2) Symbolic Ideology
Rural Soc. ID	-0.35	**6.77*** **

	(0.62)	**(1.94)**
Zip code income change	0.49	**5.71****
	(0.49)	**(1.93)**
Rural identity X Zip code inc. change	**-1.91***	**-12.74****
	(0.83)	**(3.92)**
Constant	-0.12	0.89
	(0.22)	(0.95)
lns1_1_1 _cons	-1.79	-11.70
	(1.37)	(12.04)
lns1_1_2 _cons	**-1.69*****	0.15
	(0.36)	(0.10)
lnsig_e _cons	**-1.16*****	0.16
	(0.07)	(0.09)
N	464.00	485.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Models 1 and 2 show the results of mixed effects models. Results in bold show statistical significance at p < 0.05, results in italic show statistical significance at 0.10 > p > 0.05, results in regular font show statistically insignificant results. Models do not include control variables. All variables (independent and dependent) have been recoded from zero to one. Data weighted to population benchmarks.

Figure A4.8: *Interaction between rural identity strength and local income change from Table A4.9, Model 1.*

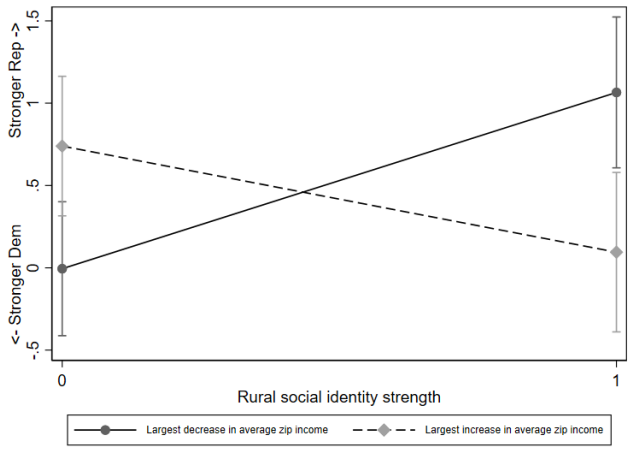


Figure A4.10: *Interaction between rural identity strength and local income change from Table A4.9, Model 2.*

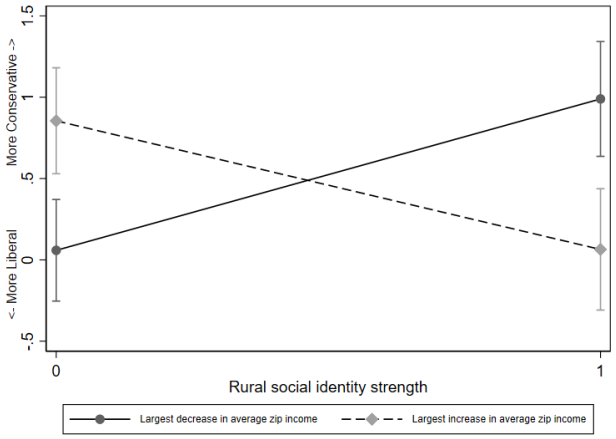


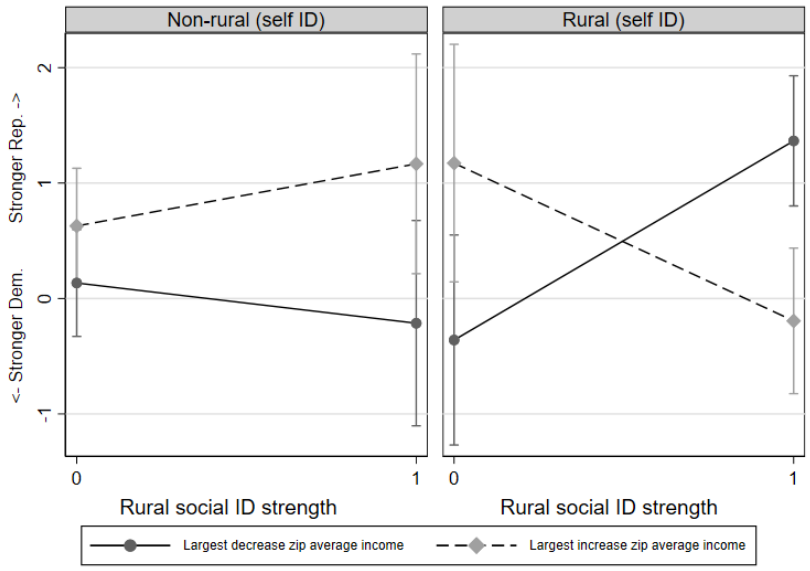
Table A4.10: *Mixed effects models predicting party identity strength, with an additional interaction term. Weights used; May 2019 Lucid data.*

	(1) Party ID Weighted	(2) Party ID Unweighted
Rural Soc. ID	-0.35	-0.14
	(0.62)	(0.66)
Zip code income change	0.49	0.35
	(0.49)	(0.48)
Rural ID X Zip income change	0.89	0.42
	(1.27)	(1.32)
Live in rural area	-0.49	-0.39
	(0.52)	(0.52)
Rural area X Rural ID	**2.07***	*1.72+*
	(0.91)	*(0.94)*
Rural area X Zip income change	1.04	0.86
	(1.10)	(1.06)
Rural area X Rural ID X Zip income change	**-3.98***	*-3.18+*
	(1.91)	*(1.91)*
Constant	0.13	0.20
	(0.24)	(0.24)
lns1_1_1 _cons	-1.68	-25.75
	(1.46)	(.)
lns1_1_2 _cons	-1.81***	-26.52
	(0.52)	(.)
lnsig_e _cons	-1.16***	-1.00
	(0.07)	(.)
N	464.00	464.00

Note: + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001, standard errors in parentheses. Models 1 and 2 show the results of mixed effects models. Results in bold show statistical significance at p < 0.05,

results in italic show statistical significance at 0.10 > p > 0.05, results in regular font show statistically insignificant results. Models do not include control variables. All variables (independent and dependent) have been recoded from zero to one. Data in model 1 weighted to population benchmarks.

Figure A4.11: *Interaction between rural identity strength and local income change for self-identified rural versus non-rural residents, from Table A4.10, Model 1.*



Weighted and Non-Weighted Sample Demographics

Table A5.3: *YouGov sample information with and without weights from wave three*

Demographic Characteristic	Unweighted Sample	Weighted (W3) Sample
Age (Avg)	51 yrs	49 yrs
Female (%)	54	51
Income (Avg)	6	6
College Educated (%)	39	41
Black (%)	30	14
Hispanic (%)	9	14
White (%)	60	71
Republican	29	47
Democrat	55	37
Independent/Other	16	6

Weights created using "svywgt" function in Stata.

Question Wordings: Wave 1

Seven-Point Party Identity Strength:

Response Options:	*N:*
1) Strong Democrat	*811*
2) Not very strong Democrat	*294*
3) Lean Democrat	*247*
4) Independent	*423*
5) Lean Republican	*184*
6) Not very strong Republican	*158*
7) Strong Republican	*414*
8) Not sure	*84*
9) Don't know	*0*

Small Town or Rural Identity – Importance:

How important is being a small town or rural resident to you?

Response Options:	*N:*
1) Extremely important	*325*
2) Very important	*467*
3) Moderately important	*549*

4)	*Slightly important*	*272*
5)	*Not at all important*	*1002*

Small Town or Rural Identity – Self View

To what extent do you think of yourself as being a small town or rural resident?

Response Options:		*N:*
1)	*A great deal*	*370*
2)	*Quite a bit*	*367*
3)	*Somewhat*	*530*
4)	*Very little*	*368*
5)	*Not at all*	*980*

Black Identity – Importance (if self-described respondent race is black):

How important is being black to you?

Response Options:		*N:*
1)	*Extremely important*	*281*
2)	*Very important*	*81*
3)	*Moderately important*	*34*
4)	*Slightly important*	*21*
5)	*Not at all important*	*24*

Black Identity – Self View (if self-described respondent race is black):

To what extent do you think of yourself as being black?:

Response Options:		*N:*
1)	*A great deal*	*309*
2)	*Quite a bit*	*60*
3)	*Somewhat*	*37*
4)	*Very little*	*20*
5)	*Not at all*	*15*

Hispanic/Latino Identity – Importance (if self-described respondent race is Hispanic/Latino):

How important is being Hispanic/Latino to you?

Response Options:		*N:*
1)	*Extremely important*	*47*
2)	*Very important*	*35*
3)	*Moderately important*	*19*
4)	*Slightly important*	*6*
5)	*Not at all important*	*13*

Hispanic/Latino – Self View (if self-described respondent race is Hispanic/Latino):

To what extent do you think of yourself as being Hispanic/Latino?:

Response Options:	*N:*

1) A great deal	*57*
2) Quite a bit	*35*
3) Somewhat	*16*
4) Very little	*7*
5) Not at all	*5*

White Identity – Importance (if self-described respondent race is white):

How important is being white to you?

Response Options:	*N:*
1) Extremely important	*135*
2) Very important	*111*
3) Moderately important	*186*
4) Slightly important	*121*
5) Not at all important	*334*

White Identity – Self View (if self-described respondent race is white):

To what extent do you think of yourself as being white?:

Response Options:	*N:*
1) A great deal	*237*
2) Quite a bit	*160*
3) Somewhat	*206*
4) Very little	*145*
5) Not at all	*139*

Location Question – Small town or rural upbringing

Did you grow up in a small town or rural area?

Response Options:	*N:*
1) Yes	*1226*
2) No	*1389*

Location Question – Current small town or rural resident

Do you currently live in a small town or rural area?

Response Options:	*N:*
1) Yes	*1150*
2) No	*1465*

Immigration Attitude Question

Do you think the number of immigrants from foreign countries who are allowed to come to the United States to live should be increased, decreased, or kept the same as it is now?

Response Options:	*N:*
1) Increased a lot	*164*
2) Increased a moderate amount	*210*
3) Increased a little	*162*
4) Kept the same as it is now	*540*
5) Decreased a little	*136*
6) Decreased a moderate amount	*97*
7) Decreased a lot	*162*

Question Wordings: Wave 3

Seven-Point Party Identity Strength:

Response Options:	*N:*
1) Strong Democrat	*474*
2) Not very strong Democrat	*170*
3) Lean Democrat	*141*
4) Independent	*240*
5) Lean Republican	*97*
6) Not very strong Republican	*83*
7) Strong Republican	*230*
8) Not sure	*36*

Small Town or Rural Identity – Importance:

How important is being a small town or rural resident to you?

Response Options:	*N:*
1) Extremely important	*174*
2) Very important	*220*
3) Moderately important	*347*
4) Slightly important	*146*
5) Not at all important	*584*

Small Town or Rural Identity – Self View

To what extent do you think of yourself as being a small town or rural resident?

Response Options:	*N:*
1) A great deal	*191*
2) Quite a bit	*200*
3) Somewhat	*306*
4) Very little	*223*
5) Not at all	*551*

Location Question – Small town or rural upbringing

Did you grow up in a small town or rural area?

Response Options:	*N:*
1) Yes	*684*
2) No	*787*

Location Question – Current small town or rural resident

Do you currently live in a small town or rural area?

Response Options:	*N:*
1) Yes	*641*
2) No	*830*

Black Identity – Importance (if self-described respondent race is black):

How important is being black to you?

Response Options:	*N:*
1) Extremely important	*276*
2) Very important	*77*
3) Moderately important	*48*
4) Slightly important	*11*
5) Not at all important	*29*

Black Identity – Self View (if self-described respondent race is black):

To what extent do you think of yourself as being black?:

Response Options:	*N:*
1) A great deal	*297*
2) Quite a bit	*61*
3) Somewhat	*50*
4) Very little	*18*
5) Not at all	*15*

Hispanic/Latino Identity – Importance (if self-described respondent race is Hispanic/Latino):

How important is being Hispanic/Latino to you?

Response Options:	*N:*
1) Extremely important	*53*
2) Very important	*28*
3) Moderately important	*19*
4) Slightly important	*11*

5) Not at all important	*9*

Hispanic/Latino – Self View (if self-described respondent race is Hispanic/Latino):
To what extent do you think of yourself as being Hispanic/Latino?:

Response Options:	*N:*
1) A great deal	*54*
2) Quite a bit	*31*
3) Somewhat	*18*
4) Very little	*8*
5) Not at all	*9*

White Identity – Importance (if self-described respondent race is white):
How important is being white to you?

Response Options:	*N:*
1) Extremely important	*132*
2) Very important	*127*
3) Moderately important	*226*
4) Slightly important	*128*
5) Not at all important	*274*

White Identity – Self View (if self-described respondent race is white):
To what extent do you think of yourself as being white?:

Response Options:	*N:*
1) A great deal	*207*
2) Quite a bit	*174*
3) Somewhat	*226*
4) Very little	*144*
5) Not at all	*136*

Immigration Attitude Question
Do you think the number of immigrants from foreign countries who are allowed to come to the United States to live should be increased, decreased, or kept the same as it is now?

Response Options:	*N:*
1) Increased a lot	*162*
2) Increased a moderate amount	*206*
3) Increased a little	*169*
4) Kept the same as it is now	*558*
5) Decreased a little	*108*
6) Decreased a moderate amount	*91*
7) Decreased a lot	*177*

Extra Analyses

Table A5.4: *Cross-lagged OLS regression models predicting rural identity (T2) and White-Hispanic ethnocentrism (T2) for whites, or Black-Hispanic ethnocentrism (T2) for blacks.*

	(1) Rural ID (T2)	(2) White-Hisp Ethnocentrism (T2)	(3) Rural ID (T2)	(4) Black-Hisp Ethnocentrism (T2)
	Whites	*Whites*	*Blacks*	*Blacks*
Rural ID (T1)	**0.74*** **	0.01	**0.67*** **	**-0.03***
	(0.02)	(0.01)	**(0.04)**	**(0.02)**
White-Hisp Ethnocentrism (T1)	0.09	**0.58*** **	-	**-**
	(0.06)	**(0.05)**		
Black-Hisp Ethnocentrism (T1)	-	-	-0.01	**0.61*** **
			(0.11)	**(0.06)**
Party ID	0.05	0.01	0.04	-0.02
	(0.03)	(0.01)	(0.05)	(0.03)
Symbolic Ideology	0.00	**0.05*** **	**0.10***	-0.01
	(0.04)	**(0.02)**	**(0.06)**	(0.03)
Hispanic	0.01	0.01	-0.03	-0.12
	(0.04)	(0.02)	(0.13)	(0.17)
Income	-0.03	**0.04***	-0.02	-0.01
	(0.04)	**(0.02)**	(0.07)	(0.03)
Education Level	**-0.07****	-0.02	0.01	-0.00
	(0.03)	(0.02)	(0.04)	(0.02)
Age	**-0.06***	-0.02	**-0.17*** **	-0.04
	(0.03)	(0.02)	**(0.06)**	(0.03)
Female	**0.04****	0.00	0.02	0.01
	(0.02)	(0.01)	(0.03)	(0.01)
Constant	**0.07***	**0.18*** **	**0.17****	**0.27*** **
	(0.04)	**(0.03)**	**(0.08)**	**(0.05)**
r2	0.67	0.49	0.51	0.38
N	767.00	767.00	384.00	383.00

*Note: * = p < 0.10, ** = p < 0.05, *** = p < 0.01, standard errors in parentheses. Results in bold show statistical significance. All variables (independent and dependent) have been recoded from zero to one. Data weighted to T2 population benchmarks.*

Experimental Treatments and Variables

Respondents were randomly assigned to one of four conditions for the experiment: the control condition, the economic condition, the respect condition, or the majority-minority

condition. Before being shown the statements for their respective conditions, respondents read a preamble worded as follows:

> *On the next screen, you will read an excerpt of an article from a local newspaper. After you read the excerpt, please answer the questions.*

The following are the wordings for each experimental condition:

Control Condition:

> New U.S. Census Bureau data suggest that the rate of geographical mobility, or the number of individuals who have moved within the past year, is increasing. The national mover rate increased from 11.9 percent in 2018 (the lowest rate since the U.S. Census Bureau began tracking the data) to 12.5 percent in 2019. According to the new data, 37.1 million people changed residences in the U.S. within the past year. 84.5 percent of all movers stayed within the same state. Renters were more than five times more likely to move than homeowners.

Economic Condition:

> The nation is currently going through an economic downturn. However, the negative economic effects will be strongly felt in rural areas of the United States in particular. This is because rural areas have lagged behind non-rural areas in various economic indicators, such as wage growth, even during the 2010s when the rest of the country was doing well economically. In other words, many rural areas were never able to fully recover from the Great Recession in the late 2000s. The recent spike in unemployment and drop in retail spending is going to pile on to the economic issues rural areas already face.

Respect Condition:

> Rural Americans are proud of their tight-knit communities, their hard work, their common sense, and their general way of life. However, many non-rural Americans look down on rural residents as being culturally uneducated and backwards, rather than appreciating or respecting their values and strengths. Popular depictions of hardworking small town residents are increasingly and unfairly being replaced by ignorant and racist country bumpkins. Recent polls suggest that a majority of rural residents in the U.S. feel disrespected and negatively stereotyped by society at large. Such a lack of respect and understanding of rural life comes at a detriment to our society.

Majority-Minority Condition:

> New U.S. Census Bureau data suggest that America will become a "majority-minority" nation much faster than once predicted – especially in rural areas, where racial and ethnic minority population growth is higher than average. The nation's racial minority population is steadily rising, advancing an unmistakable trend that could make minorities the new American majority by midcentury. The data show a declining number of White adults and growing under-18 populations of Hispanics, Asians, and other minorities. Demographers calculate that by 2042,

Americans who identify themselves as Hispanic, Black, Asian, American Indian, Native Hawaiian, or Pacific Islander will together outnumber non-Hispanic Whites. The main reasons for the accelerating change are rapid immigration growth and significantly higher birthrates among racial and ethnic minorities.

Attention Check Questions

If respondents received the control condition:

True or false? According to the article you just read, Americans have been moving much less in the past couple years.

If respondents received the economic condition:

True or false?: According to the article excerpt you just read, in the past decade rural areas on average have not completely recovered from the recession, in contrast to non-rural areas.

If respondents received the respect condition:

True or false?: According to the article excerpt you just read, many rural residents feel as if they are disrespected by the rest of society.

If respondents received the majority-minority condition:

True or false? According to the article excerpt you just read, minority population growth is higher in rural areas.

Dependent Variable Questions (randomized order)

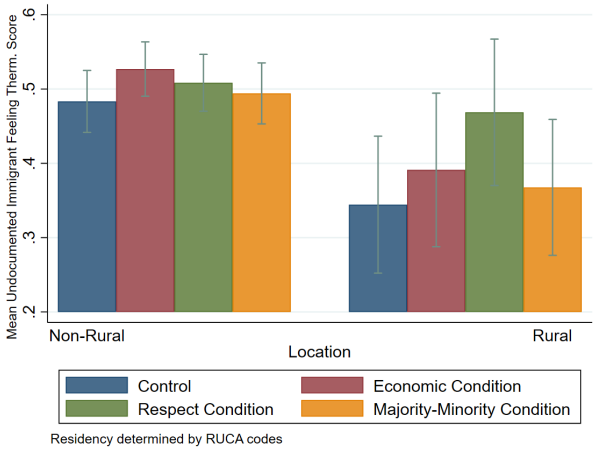
Where would you rate the following people or groups, where 0 means that you feel extremely cold toward that group or person, and 100 means that you feel extremely warm toward that group or person? A score of 50 means you feel neutral toward that group or person.

A. *Scientists*
B. *Republicans*
C. *Democrats*
D. *Undocumented Immigrants*

Other Experimental Results

Figure A5.1: *Experimental results (CSPP) for all (left) or white (right) respondents, with and without passing the attention check, by residency.*

Figure A5.2: *Experimental results (CSPP 2020) for all respondents who passed the attention check, with rurality determined by RUCA codes.*



Note: only includes respondents who passed the attention check.

Table A5.4: *Feelings toward undocumented immigrants by experimental treatment condition, for rural residents only (RUCA codes), by race and/or partisanship.*

	(1) Feelings toward Undocumented Imm. *Rural respondents*	(2) Feelings toward Undocumented Imm. *Rural respondents*	(3) Feelings toward Undocumented Imm. *Rural respondents*	(4) Feelings toward Undocumented Imm. *White rural respondents*
Economic Condition	0.05	0.14	-0.02	-0.12
	(0.07)	(0.16)	(0.10)	(0.13)
Respect Condition	*0.12+*	0.04	0.09	0.13
	(0.07)	(0.15)	(0.09)	(0.10)
Majority-Minority Condition	0.02	-0.09	-0.05	0.07

	(0.07)	(0.16)	(0.09)	(0.11)
Respondent Race White = 1	-	-0.14	-	-
		(0.13)		
Economic X White	-	-0.15	-	-
		(0.18)		
Respect X White	-	0.09	-	-
		(0.17)		
MM X White	-	0.14	-	-
		(0.18)		
Independent	-	-	**-0.30****	**-0.29***
			(0.11)	**(0.12)**
Republican	-	-	**-0.41*****	**-0.38*****
			(0.09)	**(0.10)**
Economic X Independent	-	-	0.08	0.21
			(0.18)	(0.22)
Economic X Republican	-	-	0.10	0.20
			(0.13)	(0.16)
Respect X Independent	-	-	0.02	-0.05
			(0.14)	(0.17)
Respect X Republican	-	-	-0.06	-0.09
			(0.13)	(0.14)
MM X Independent	-	-	0.08	-0.05
			(0.15)	(0.17)
Respect X Republican	-	-	0.04	-0.09
			(0.13)	(0.14)
Constant	0.34***	0.47***	0.59***	0.57***
	(0.05)	(0.12)	(0.07)	(0.07)
r2	0.02	0.07	0.35	0.37
N	167.00	167.00	167.00	130.00

Note: Passed attention check only. Standard errors in parentheses. + = p < 0.10, * = p < 0.05, ** = p < 0.01, *** = p < 0.001; *Statistically significant coefficients bolded for emphasis.*

Section A Appendix: Non-Experimental Study 3 Lucid Data

Sample characteristics and weighting information for Study 3 Lucid data

Table A6.1: *Sample Characteristics and weighting for Study 3 Lucid data.*

Variable	Lucid Data (Raw)	Lucid Data (Weighted)	Benchmark	Benchmark Source
Female	51%	52%	52%	CPS 2017
College Degree	31%	32%	30%	CPS 2017
Black	13%	13%	12%	CPS 2017
White	66%	65%	65%	CPS 2017
Hispanic	16%	15%	15%	CPS 2017
Democrat	39%	39%	34%	ANES (Wgt.)
Republican	35%	36%	28%	ANES (Wgt.)
Independent	26%	26%	32%	ANES (Wgt.)
Mean Age	47	47	47	ANES (Wgt.)
Median Income	$55-59,999	$60-64,999	$ 55-59,999	ANES (Wgt.)

Note. Comparison of the study's Lucid data to known population benchmarks. CPS = Current Population Survey (US Census, 2017). ANES = American National Election Study (2016). Although CPS is a better benchmark given its sample size and representativeness, I use weighted ANES data when CPS information is not available (CPS does not ask questions about Party ID). Weights in column two adjust for gender, education, race, age, and income. Party ID is not included in the weighting formula, and is shown only due to the potential interests of those who might use or otherwise consume this data. N = 825.

Definitions of different RUCA code levels

Primary RUCA Codes, 2010

1 Metropolitan area core: primary flow within an urbanized area (UA)
2 Metropolitan area high commuting: primary flow 30% or more to a UA
3 Metropolitan area low commuting: primary flow 10% to 30% to a UA
4 Micropolitan area core: primary flow within an Urban Cluster of 10,000 to 49,999 (large UC)
5 Micropolitan high commuting: primary flow 30% or more to a large UC
6 Micropolitan low commuting: primary flow 10% to 30% to a large UC
7 Small town core: primary flow within an Urban Cluster of 2,500 to 9,999 (small UC)
8 Small town high commuting: primary flow 30% or more to a small UC
9 Small town low commuting: primary flow 10% to 30% to a small UC

10 Rural areas: primary flow to a tract outside a UA or UC
99 Not coded: Census tract has zero population and no rural-urban identifier information

Note: The Rural-Urban Commuting Area ("RUCA") codes developed by the USDA Economic Research Service and the University of Washington, which use Census tract levels ("fips" codes). This measure is useful in differentiating between rural areas that are or are not dependent economically on urban areas, which gives a better sense of not only economic isolation, but also cultural and social isolation. This measure is also very sensitive to demographic shifts, which is significant for determining the correlates of political outcomes. In addition, RUCA codes are easy to aggregate together given the multiple levels of rurality and are easy to convert to larger geographic levels of zip code or county, although this complexity can also be unwieldly at times (Hart et al. 2005).

Question wordings

Vaccines Cause Autism:
Can vaccines administered to children at young ages cause them to become autistic?
[1] They definitely can
[2] They probably can
[3] They probably cannot
[4] They definitely cannot

Anti-Intellectualism Scale (Oliver and Rahn 2016):

A. How much do you agree? I'd rather put my trust in the wisdom of ordinary people than in the opinions of experts and intellectuals.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

B. How much do you agree? When it comes to really important questions, scientific facts don't help much.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

C. **(reversed)** How much do you agree? Ordinary people can really use the help of experts to understand complicated things like science.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

Anti-Political Elite Scale (Oliver and Rahn 2016):

A. How much do you agree? People like me don't have much say in what government does.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

B. How much do you agree? Politics usually boils down to a struggle between the people and the powerful.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

C. How much do you agree? The system is stacked against people like me.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

D. How much do you agree? Politics is ultimately a struggle between good and evil.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree

[7] Strongly agree

Rural Identification Questions:

A. Did you grow up in a small town or rural area?
   [1] Yes
   [2] No

B. Do you currently live in a small town or rural area?
   [1] Yes
   [2] No

Rural Identity Strength Questions:

Respondents only answered these questions if they chose "yes" to either of the rural identification questions above. Otherwise, they answered the five Metro Identity Strength questions listed below.

Question order was randomly assigned.

A. How much is being from a small town or rural area part of your identity?
   [1] A great deal
   [2] A lot
   [3] A moderate amount
   [4] A little
   [5] None at all

B. How important is being a small town or rural resident to you?
   [1] Extremely important
   [2] Very important
   [3] Moderately important
   [4] Slightly important
   [5] Not at all important

C. How well does the term "small town or rural resident" describe you?
   [1] Extremely well
   [2] Very well
   [3] Moderately well
   [4] Slightly well
   [5] Not well at all

D. When talking about small town or rural residents, how often do you use "we" instead of "they"?
   [1] Always
   [2] Most of the time
   [3] About half the time
   [4] Sometimes
   [5] Never

E. To what extent do you think of yourself as being a small town or rural resident?
   [1] A great deal
   [2] A lot

[3] A moderate amount
[4] A little
[5] None at all

Metro Identity Strength Questions

Respondents only answered these questions if they did not say "yes" to either of the two rural identification questions listed above.

Question order was randomly assigned.

A. How much is being from a metro area (suburbs/large cities) part of your identity?
   [1] A great deal
   [2] A lot
   [3] A moderate amount
   [4] A little
   [5] None at all

B. How important is being a resident of a metro area to you?
   [1] Extremely important
   [2] Very important
   [3] Moderately important
   [4] Slightly important
   [5] Not at all important

C. How well does the term "metro resident" describe you?
   [1] Extremely well
   [2] Very well
   [3] Moderately well
   [4] Slightly well
   [5] Not well at all

D. When talking about metro residents, how often do you use the term "we" instead of "they"?
   [1] Always
   [2] Most of the time
   [3] About half the time
   [4] Sometimes
   [5] Never

E. To what extent do you think of yourself as being a metro resident?
   [1] A great deal
   [2] A lot
   [3] A moderate amount
   [4] A little
   [5] None at all

Political Interest Questions

A. How often do you pay attention to politics and elections?

[1] Always
[2] Most of the time
[3] About half the time
[4] Sometimes
[5] Never

B. How interested are you in information about what's going on in government and politics?
[1] Extremely interested
[2] Very interested
[3] Somewhat interested
[4] Slightly interested
[5] Not at all interested

Evangelical Question:
Do you consider yourself an evangelical and/or born again Christian?
[1] Yes
[2] No

Party Identity Question

A. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?
[1] Republican
[2] Democrat
[3] Independent
[4] Other party

B. *(Only if Answered [2] to question A):* Would you call yourself a strong Democrat or a not very strong Democrat?
[1] Strong Democrat
[2] Not very strong Democrat

C. *(Only if Answered [1] to question A):* Would you call yourself a strong Republican or a not very strong Republican?
[1] Strong Republican
[2] Not very strong Republican

D. *(Only if Answered [3] or [4] to question A):* Do you think of yourself as closer to the Republican Party or the Democratic Party?
[1] Democratic
[2] Republican
[3] Neither

Rural Binary Subjective Identification and Vaccine Misinformation Endorsement

Table A6.2 below displays how many respondents endorsed the outcome variable according to binary rural versus non-rural identifiers. For non-rural residents in the sample, 127/472, or 27% reported that vaccines definitely or probably cause autism. However, for rural residents, 134/339 – 37% - reported that vaccines definitely or probably cause autism. Furthermore, a t-test of the mean score for vaccine-autism endorsement between rural and non-rural resident groups is statistically significant (probability of rejecting the null hypothesis that the two means are equal is 0.003).

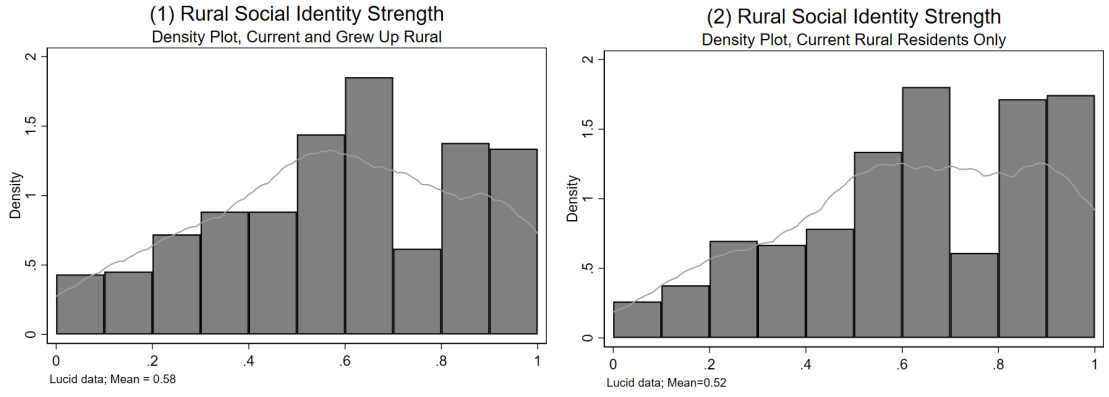
Table A6.2: *Number of Respondents from Lucid data who endorse vaccine misinformation, by rural versus non-rural.*

	Vaccines Definitely Do Not or Probably Do Not Cause Autism	Vaccines Definitely or Probably Cause Autism	
Non-Rural (Subjective)	345	127	472
Rural (Subjective)	205	134	339
	650	263	

Note: weighted data.

Additional Rural Identity Strength Distribution (Lucid data)

Figure A6.1: *Rural identity strength distributions for current and grew up rural residents versus current rural residents only.*



Additional Regression Tables (Lucid data)

Table A6.3: *Predicting vaccine misinformation endorsement using Lucid data, with self-identified rural resident rather than RUCA code rural residency.*

	(1) Vax Misinfo. Endorsement *(Current Rural Residents and Grew Up in Rural Areas only)*	(2) Vax Misinfo. Endorsement *(Current Rural Residents and Grew Up in Rural Areas only)*
Current Rural Resident	1.21	1.15
	(0.33)	(0.32)
Rural ID Strength	**3.60****	2.31
	(1.85)	(1.20)
Anti-Intellectualism	-	**17.19*****
		(13.02)
Education Level	2.28	2.11
	(1.39)	(1.31)
Income Level	**0.34****	**0.32****
	(0.18)	**(0.18)**
Party ID	**2.34****	**2.02****
	(0.79)	**(0.70)**
Age	**0.13*****	**0.13*****
	(0.08)	**(0.08)**
Gender	**0.59****	**0.63***
	(0.15)	**(0.17)**
Black	**2.64****	**2.39****
	(1.02)	**(0.94)**
Hispanic	1.52	1.50
	(0.50)	(0.51)
Evangelical	1.43	1.24
	(0.38)	(0.34)
Political Interest	1.15	1.32
	(0.55)	(0.63)
Pseudo r2	0.14	0.17
N	426.00	426.00

*Note: Logit models, odds ratios shown. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

Section B Appendix: ANES Pilot Data

Sample characteristics and weighting information for ANES (ANES) data

Table A6.4: *Sample characteristics and weighting for ANES (ANES pilot) data.*

Variable	Raw ANES data	Weighted ANES data
Female	52%	52%
College Degree	44%	41%
Black	11%	12%
Whtie	70%	68%
Hispanic/Latino	11%	12%
Democrat	32%	33%
Independent	38%	26%
Republican	27%	26%
Mean Age	52	50
Median Income	$50,000 - $59,000	$50,000 - $59,000

Please refer to ANES documentation for more information on the weighting procedure: https://electionstudies.org/wp-content/uploads/2020/02/anes_pilot_2019_userguidecodebook.pdf.

Question wordings – ANES

Place and Place Identity Questions:

Q1. Do you currently live in a rural area, small town, suburb, or a city?
[1] I currently live in a rural area
[2] I currently live in a small town
[3] I currently live in a suburb
[4] I currently live in a city

Q2. Growing up, did you mostly live in a rural area, small town, suburb, or a city?
[1] I grew up in a rural area
[2] I grew up in a small town
[3] I grew up in a suburb
[4] I grew up in a city

Q3. How important is being a '[fill]' to your identity?
Fill = [IF Q1 or Q2 <=4] [if Q1=1 or Q2=1 fill="city person"; if Q1=2 or Q2=2 fill = "suburb person"; if Q1=3 or Q2=3 fill = "small town person"; if Q1=4 or Q2=4 fill = "country (or rural) person"]
[1] Not at all important
[2] A little important

[3] Moderately important
[4] Very important
[5] Extremely important

Anti-Intellectualism:

Q1. When it comes to public policy decisions, whom do you tend to trust more, ordinary people or experts?

[1] Trust ordinary people much more
[2] Trust ordinary people somewhat more
[3] Trust both the same
[4] Trust experts somewhat more
[5] Trust experts much more

Q2. In general, how important should science be for making government decisions?

[1] Not at all important
[2] A little important
[3] Moderately important
[4] Very important
[5] Extremely important

Q3. How much do ordinary people need the help of experts to understand complicated things like science and health?

[1] Not at all
[2] A little
[3] A moderate amount
[4] A lot
[5] A great deal

Anti-Science/Health Misinformation DVs:

Vaccine Misinformation.

Note: Half of respondents received Q1a, while the other half received Q1b.

Q1a. Which of these two statements do you think is most likely to be true?

[1] Childhood vaccines cause autism
[2] Childhood vaccines do not cause autism

Q1b. Which of these two statements do you think is most likely to be true?

[1] Most scientific evidence shows childhood vaccines cause autism
[2] Most scientific evidence shows childhood vaccines do not cause autism

Climate Change.

Note: All respondents received Q2 below.

Q2. Which of these two statements do you think is most likely to be true?

[1] World temperatures have risen on average over the last 100 years

[2] World temperatures have not risen on average over the last 100 years

GMO Safety.
Note: Half of respondents received Q3a, while the other half received Q3b.

Q1a. Which of these two statements do you think is most likely to be true?
[1] Genetically modified foods are safe to eat
[2] Genetically modified foods are not safe to eat

Q1b. Which of these two statements do you think is most likely to be true?
[1] Most scientific evidence shows genetically modified foods are safe to eat
[2] Most scientific evidence shows genetically modified foods are not safe to eat

Political Interest Question:
Q1. Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?
[1] Most of the time
[2] Some of the time
[3] Only now and then
[4] Hardly at all

Evangelical Question:
Do you consider yourself an evangelical and/or born again Christian?
[1] Yes
[2] No

Party Identity Question

Q1a. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?
[1] Republican
[2] Democrat
[3] Independent
[4] Other party

Q1b. *(Only if Answered [2] to question Q1a):* Would you call yourself a strong Democrat or a not very strong Democrat?
[1] Strong Democrat
[2] Not very strong Democrat

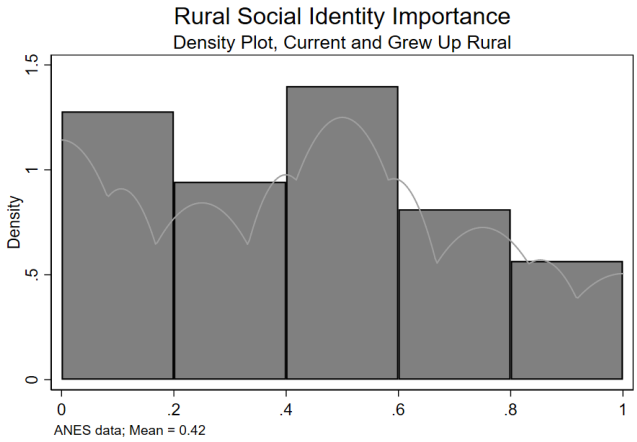
Q1c. *(Only if Answered [1] to question Q1a):* Would you call yourself a strong Republican or a not very strong Republican?
[1] Strong Republican
[2] Not very strong Republican

Q1d. *(Only if Answered [3] or [4] to question Q1a):* Do you think of yourself as closer to the Republican Party or the Democratic Party?

[1] Democratic
[2] Republican
[3] Neither

Distribution of Rural Identity Importance

Figure A6.2: *The distribution of rural identity importance for current rural residents or for those who said that they grew up in rural areas.*



Rural Binary Subjective Identification and Misinformation Endorsement Scale – ANES

Table A6.5 below shows the distribution of rural versus non-rural respondents and the number of science/health misinformation endorsement items they support. For rural residents, the mean score on this scale is 0.97, while for non-rural residents, it is 0.83; this is a 4.5 percentage point difference. The results of a t-test comparing the mean score for the anti-science misinformation scale between rural and non-rural respondents is statistically significant at $p < 0.0001$.

Table A6.5: *Number of respondents from ANES who endorse vaccine misinformation, by rural versus non-rural.*

	Zero Misinformation Endorsements	One Misinformation Endorsement	Two Misinformation Endorsements	Three Misinformation Endorsements	
Non-Rural Resident	881	762	372	80	2096
Current or Grew Up Rural Resident	308	341	182	48	958
	1257	1153	583	145	

Note: weighted data.

Table A6.6 below shows that, for non-rural residents in the sample, 314/2102, or 15% reported that vaccines cause autism. However, for rural residents, 148/884 – 18% - reported that vaccines cause autism. Furthermore, a t-test of the mean score for vaccine-autism endorsement between rural and non-rural resident groups is marginally significant (probability of rejecting the null hypothesis that the two means are equal is 0.08). Although the urban-rural difference is less pronounced, the effect is similar to that found in the Lucid data.

Table A6.6: *Number of respondents from ANES who endorse vaccine misinformation, by rural versus non-rural.*

	Vaccines Do Not Cause Autism	Vaccines Cause Autism	
Non-Rural Resident	1788	314	2102
Current or Grew Up Rural Resident	736	148	884
	2524	462	

Note: weighted data.

Table A6.7: *Number of respondents from ANES who reject global warming, by rural versus non-rural.*

	Global warming believer	Global warming denier	
Non-Rural Resident	1612	495	2106
Current or Grew Up Rural Resident	621	267	889
	2233	762	

Note: weighted data.

Table A6.8: *Number of respondents from ANES for each GMO response, by rural versus non-rural.*

	GMOs safe	GMOs unsafe	
Non-Rural Resident	1155	947	2102
Current or Grew Up Rural Resident	439	446	885
	1594	1393	

Note: weighted data.

As mentioned above, the ANES data set also includes measures of global warming skepticism. Table A6.7 above shows global warming endorsement by rural versus non-rural. 495/2106, or 24%, of non-rural residents are global warming skeptics, compared to 267/889, or 30%, of rural residents. A t-test of the mean difference between rural versus non-rural residents is statistically significant at a probability of less than 0.0001.

Finally, Table A6.8 above shows evaluations of GMO safety by non-rural versus rural respondents. 947/2102, or 45%, of non-rural residents believe GMOs are unsafe for consumption. Conversely, 446/886, or 50%, of rural residents believe the same. A t-test of the mean difference between rural versus non-rural residents is statistically significant at a probability of less than 0.01.

Additional Regression Tables for ANES Data

The table below displays the results for the three science/health misinformation dependent variables. Models 1, 4, and 7 show bivariate regressions indicating that rural identity importance does significantly and positively predict misinformation acceptance for all three dependent variables. Also in line with expectations, rural identity importance becomes insignificant when anti-intellectualism is added into the model; theoretically, if anti-intellectualism mediates the relationship between rural identity and the outcome variables, then the effect of rural identity and the outcome variables should weaken and/or become insignificant. However, for models without anti-intellectualism but with control variables (Models 2, 5, and 8),

once control variables are added rural identity importance is statistically significant only for global warming (Model 5) and not for GMOs or vaccine misinformation endorsement.

Table A6.9: *Predicting vaccine misinformation endorsement, global warming skepticism, and GMOs being unsafe, using weighted ANES data, for current or grew up rural residents only.*

	(1) Vax Misinfo. Endorsement	(2) Vax Misinfo. Endorsement	(3) Vax Misinfo. Endorsement	(4) Global Warming Denial	(5) Global Warming Denial	(6) Global Warming Denial	(7) GMOs unsafe	(8) GMOs unsafe	(9) GMOs unsafe
Rural ID Importance	**2.24*** **	1.63	1.55	**2.54*** **	**1.65***	1.57	**1.50***	1.49	1.43
	(0.65)	(0.55)	(0.52)	**(0.60)**	**(0.47)**	(0.47)	**(0.33)**	(0.37)	(0.36)
Anti-Intellectualism	-	-	**10.87*** **	-	-	**20.06*** **	-	-	**2.35*** *
			(5.83)			**(10.71)**			**(0.93)**
Education Level	-	0.74	0.95	-	0.96	1.27	-	1.43	1.56
		(0.31)	(0.38)		(0.35)	(0.47)		(0.44)	(0.48)
Income	-	0.84	0.86	-	0.54	0.53	-	**0.20*** **	**0.21*** **
		(0.55)	(0.56)		(0.28)	(0.29)		**(0.09)**	**(0.09)**
Party ID	-	**2.31*** *	1.69	-	**7.28*** **	**4.94*** **	-	1.09	0.92
		(0.79)	(0.59)		**(1.98)**	**(1.45)**		(0.27)	(0.24)
Age	-	**2.70*** *	**4.61*** **	-	0.70	1.33	-	0.78	0.93
		(1.30)	**(2.39)**		(0.31)	(0.63)		(0.31)	(0.38)
Female	-	1.04	1.06	-	0.83	0.84	-	**1.39*** *	**1.39*** *
		(0.24)	(0.25)		(0.15)	(0.16)		**(0.23)**	**(0.23)**
Black	-	**2.61*** *	**2.74*** **	-	1.10	1.17	-	1.20	1.18
		(0.99)	**(1.03)**		(0.45)	(0.47)		(0.39)	(0.38)
Hispanic	-	1.25	1.04	-	1.33	1.06	-	1.12	1.05
		(0.46)	(0.40)		(0.49)	(0.43)		(0.37)	(0.36)
Born Again Christian	-	**2.01*** **	**1.75*** *	-	**1.85*** **	**1.56*** *	-	1.11	1.04
		(0.48)	**(0.41)**		**(0.37)**	**(0.32)**		(0.20)	(0.19)
Political Interest	-	1.28	1.42	-	1.12	1.28	-	0.74	0.79
		(0.49)	(0.55)		(0.39)	(0.45)		(0.20)	(0.21)
Midwest	-	**0.35*** *	**0.35*** *	-	1.12	1.17	-	1.11	1.11
		(0.15)	**(0.15)**		(0.35)	(0.38)		(0.30)	(0.31)
South	-	0.69	0.67	-	0.94	0.93	-	0.90	0.90
		(0.21)	(0.21)		(0.26)	(0.27)		(0.21)	(0.21)
West	-	1.16	1.11	-	1.14	1.12	-	0.81	0.80
		(0.39)	(0.37)		(0.36)	(0.36)		(0.22)	(0.21)
r2									
N	894.00	740.00	740.00	898.00	745.00	745.00	893.00	741.00	741.00

*Logit model, odds ratios shown. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

The results in Models 2 and 8 therefore run counter to the expectations laid out for the argument. To further investigate this dynamic, recall that the vaccine-autism dependent variable and the GMO safety variable are comprised of two separate questions: whether the individual personally believes the misinformation, or, whether the individual believes scientific consensus endorses the misinformation. I therefore replicate Models 1, 3, 7, and 9 in the above table, but for these two separate measures. The results can be found in Table A6.10 below. From these results, a pattern emerges: rural identity importance significantly and positively predicts *the perception that scientific consensus endorses misinformation,* i.e., that GMOs are unsafe and that vaccines cause autism. This is apparent in Models 3 and 7. Furthermore, the effect of rural identity importance is attenuated when anti-intellectualism is added into the models (Models 4 and 8). Conversely, rural identity importance does not predict personal misinformation endorsement (Models 1-2 and 5-6).

Table A6.10: *Predicting personal belief versus perception of scientific consensus for vaccine misinformation endorsement and GMOs being unsafe, using weighted ANES data, for current or grew up rural residents only.*

	(1) Vaccines Cause Autism (personal opinion)	(2) Vaccines Cause Autism (personal opinion)	(3) Vaccines Cause Autism (expert consensus)	(4) Vaccines Cause Autism (expert consensus)	(5) GMOs unsafe (personal opinion)	(6) GMOs unsafe (personal opinion)	(7) GMOs unsafe (expert consensus)	(8) GMOs unsafe (expert consensus)
Rural ID Importance	1.55	1.23	**3.77*** **	**2.90***	0.97	0.97	**2.38*** **	**2.22*** *
	(0.59)	(0.54)	**(1.73)**	**(1.71)**	(0.33)	(0.37)	**(0.71)**	**(0.79)**
Anti-Intellectualism	-	**6.86*** *	-	**20.83*** **	-	**3.14***	-	1.58
		(5.89)		**(14.57)**		**(1.99)**		(0.79)
Education Level	-	1.54	-	0.65	-	1.84	-	1.40
		(0.92)		(0.36)		(0.85)		(0.58)
Income	-	0.49	-	2.39	-	**0.18*** **	-	**0.25*** *
		(0.43)		(2.39)		**(0.12)**		**(0.14)**
Party ID	-	1.98	-	1.55	-	0.61	-	1.55
		(0.93)		(0.76)		(0.23)		(0.57)
Age	-	2.21	-	**14.42*** **	-	0.75	-	1.04
		(1.50)		**(13.15)**		(0.45)		(0.54)
Female	-	1.26	-	0.81	-	1.10	-	1.66**
		(0.43)		(0.29)		(0.27)		(0.38)
Black	-	**3.26*** *	-	2.23	-	1.12	-	1.44
		(1.76)		(1.26)		(0.59)		(0.59)
Hispanic	-	1.36	-	0.61	-	0.73	-	1.63
		(0.68)		(0.41)		(0.35)		(0.71)
Born Again Christian	-	**1.75***	-	1.66	-	1.43	-	0.76
		(0.55)		(0.63)		(0.39)		(0.20)
Political Interest	-	1.50	-	1.11	-	0.87	-	0.65
		(0.84)		(0.64)		(0.36)		(0.23)
Midwest	-	**0.32*** *	-	0.43	-	1.51	-	0.81
		(0.18)		(0.28)		(0.63)		(0.31)
South	-	0.56	-	0.81	-	0.96	-	0.84
		(0.24)		(0.39)		(0.34)		(0.27)
West	-	0.80	-	1.39	-	0.89	-	0.69

		(0.37)		(0.74)		(0.34)		(0.26)
pr2								
N	418.00	344.00	476.00	396.00	420.00	346.00	473.00	395.00

*Logit model, odds ratios shown. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

Section C Appendix: Experimental Pilot Data (Study 5)

Sample Characteristics and Weighting Information for Experimental Data

Table A6.11: *Sample characteristics and weighting information for Study 5 Experimental data.*

Variable	Lucid Data (Raw)	Lucid Data (Weighted)	Benchmark	Benchmark Source
Female	51%	51%	52%	CPS 2017
College Degree	41%	26%	30%	CPS 2017
Black	13%	13%	12%	CPS 2017
White	68%	65%	65%	CPS 2017
Hispanic	13%	16%	15%	CPS 2017
Democrat	36%	36%	34%	ANES (Wgt.)
Republican	38%	39%	28%	ANES (Wgt.)
Independent	26%	25%	32%	ANES (Wgt.)
Mean Age	44	46	47	ANES (Wgt.)
Median Income	$60-64,999	$60-64,999	$ 55-59,999	ANES (Wgt.)

Note. Comparison of the study's Lucid (Experimental data) data to known population benchmarks. CPS = Current Population Survey (US Census, 2017). ANES = American National Election Study (2016). Although CPS is a better benchmark given its sample size and representativeness, I use weighted ANES data when CPS information is not available (CPS does not ask questions about Party ID). Weights in column two adjust for gender, education, race, age, and income. Party ID is not included in the weighting formula, and is shown only due to the potential interests of those who might use or otherwise consume this data. N = 360.

Experiment Treatments and Question Wordings – Experimental data

Experiment

Respondents began the survey either as being in the control group or in the treatment group (random assignment). Those in the control group did not receive any experimental prompt and proceeded immediately to the dependent variable (whether vaccines cause autism). Those in the treatment group first saw a screen displaying the following:

On the following screen, you will be given an excerpt of a recent opinion piece from a local newspaper. Please read the text, then complete the questions afterwards.

→

After clicking on the blue button with the right-facing arrow, respondents were then shown the following screen:

"There are many reasons to be proud of living in a non-metro area. Rural residents point to the lack of traffic, the peace and quiet, the closeness to nature, safety, and the strong sense of community and values. Furthermore, the cost of living tends to be lower and larger houses are fairly cheap. These reasons, among others, make living in a rural area worthwhile.

People have noticed. Over the past several decades, more people are choosing to live in rural and small town America. In fact, rural population growth has actually increased since 1970, despite popular media narratives. A good portion of this movement is fueled by younger generations who grew up in rural America and have decided to move back."

→

Then, after selecting the blue button with the right-facing arrow, respondents saw a new screen with the experimental dependent variable (vaccines cause autism).
All respondents were debriefed at the end of the survey. In this debrief, respondents were told that the excerpt was not actually from a local newspaper, and that they were told this deception to create some sense of legitimacy in the passage.

Vaccines Cause Autism (Experimental DV):
Can vaccines administered to children at young ages cause them to become autistic?
[1] They definitely can
[2] They probably can
[3] They probably cannot
[4] They definitely cannot

Anti-Intellectualism Scale:

A. How much do you agree? I'd rather put my trust in the wisdom of ordinary people than in the opinions of experts and intellectuals.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

B. How much do you agree? When it comes to really important questions, scientific facts don't help much.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

C. **(reversed)** How much do you agree? Ordinary people can really use the help of experts to understand complicated things like science.
   [1] Strongly disagree
   [2] Disagree
   [3] Slightly disagree
   [4] Neither agree nor disagree
   [5] Slightly agree
   [6] Agree
   [7] Strongly agree

Rural Identification Questions

A. What best describes the community where you grew up?
   [1] City
   [2] Suburb
   [3] Small Town
   [4] Rural

B. Which best describes the community where you live now?
   [1] City

[2] Suburb
[3] Small Town
[4] Rural

Political Interest Question
How interested are you in politics?
[1] Very interested
[2] Moderately interested
[3] Slightly interested
[4] Not at all interested

Evangelical Question:
Do you consider yourself an evangelical and/or born again Christian?
[1] Yes
[2] No

Party Identity Questions

A. Generally speaking, do you usually think of yourself as a Republican, a Democrat, and Independent, or what?
   [1] Republican
   [2] Democrat
   [3] Independent
   [4] Other party

B. *(Only if Answered [2] to question A):* Would you call yourself a strong Democrat or a not very strong Democrat?
   [1] Strong Democrat
   [2] Not very strong Democrat

C. *(Only if Answered [1] to question A):* Would you call yourself a strong Republican or a not very strong Republican?
   [1] Strong Republican
   [2] Not very strong Republican

D. *(Only if Answered [3] or [4] to question A):* Do you think of yourself as closer to the Republican Party or the Democratic Party?
   [1] Democratic
   [2] Republican
   [3] Neither

Distribution of rural residency, experimental conditions, and anti-intellectualism (Experimental data)

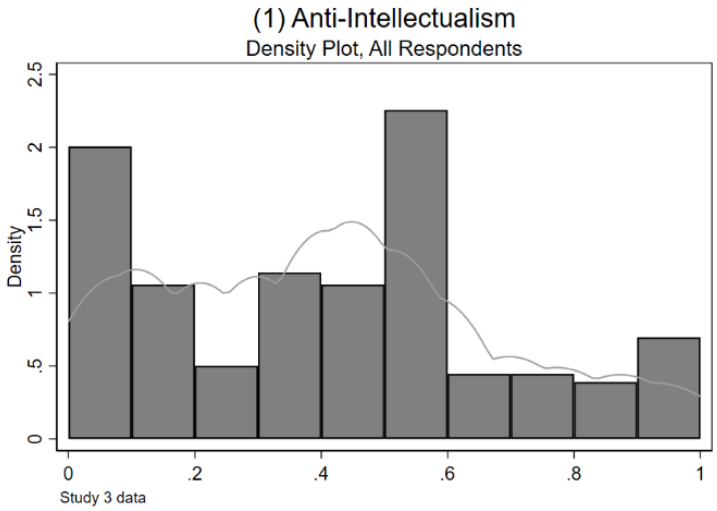
Table A6.12: *Distribution of rural residency versus rural/small town residency, experimental conditions, and anti-intellectualism (Experimental data).*

Control Cond.		
		# of respondents if anti-intellectualism is less than the mean (0.42)
	Non-rural	72
	Rural	36
Treatment Cond.		
	Non-rural	98
	Rural	20

Unweighted data.

The above table (A12) suggests that many of the calculations done for rural residency only (as opposed to rural/small town residency) are problematic due to there being very few individuals in some of these groups. For this reason, I perform all analyses looking at rural residents versus non-rural residents, as well as looking at rural/small town residents versus non-rural/small town residents. Furthermore, histograms of key variables, including anti-intellectualism, show that higher levels of anti-intellectualism are fairly uncommon across the board (Figure A3). This uneven distribution is further evidence that certain analyses could be prone to high levels of variance if only rural resident/non-rural resident is used.

Figure A6.3: *Anti-Intellectualism histogram for Experimental data data, all respondents.*

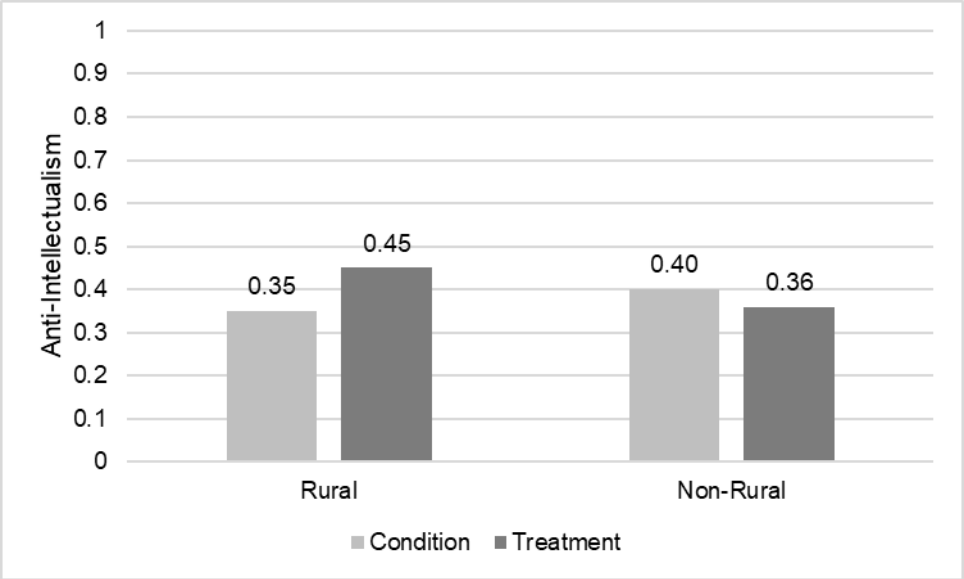


Experimental data Means, unweighted data

Figure A6.4 below shows the mean anti-intellectualism scores for rural and non-rural respondents for each condition. Rural respondents in the control group had an average anti-intellectualism score of 0.33 (95% CI = [0.26, 0.40]), while rural respondents in the treatment group had a mean score of 0.44 [95% CI = [0.38, 0.44]). Although there is slight overlap in the confidence level intervals, neither confidence level interval includes the mean score of the other group. A t-test of the means between these two treatment groups for rural respondents rejects the null hypothesis

that the means are the same with a probability of 0.04. This suggests a distinct and significant difference in means; exposure to the treatment group for rural respondents yielded higher anti-intellectualism scores, on average, compared to those in the control.

Figure A6.4: *Replicates Figure 3 but with unweighted data. Average anti-intellectualism scores by experimental condition and rural identification.*



For non-rural respondents, the mean anti-intellectualism score was 0.41 (95% CI = [0.35, 0.53]) for those in the control group and 0.36 (95% CI = [0.33, 0.39]) for those in the treatment group. This time, the means are in the confidence interval range of the other mean. However, a t-test of the means between these two treatment groups for non-rural respondents rejects the null hypothesis that the means are the same with a probability of 0.02. Therefore, exposure to the treatment for non-rural respondents resulted in a *decrease* in anti-intellectualism, compared to the control.

Additional Analyses for Experimental data

As expected, the interaction between the experimental conditions and rural residency remains positive and significant, controlling for other variables.

Table A6.13: *Predicting anti-intellectualism with the interaction between treatment group and rural respondent as the primary independent variable.*

	(1) Anti-Intellectualism
Rural Res. Identifier	-0.06
	(0.04)
Education	-0.01

Level	
	(0.01)
Income	-0.01
	(0.05)
Party ID	**0.14*** **
	(0.04)
Age	**-0.14*** **
	(0.05)
Female	-0.01
	(0.03)
Black	0.04
	(0.05)
Hispanic	0.03
	(0.04)
Born Again Christian	**0.06** **
	(0.03)
Political Interest	-0.01
	(0.04)
Treatment = 1	-0.05
	(0.03)
Treatment X Rural Res. ID	**0.14***
	(0.06)
Constant	**0.41*** **
	(0.05)
r2	0.16
N	336.00

*Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Data weighted to population benchmarks.*

Table A6.14: *Replication of Table A3.3 analyses using bivariate, and then unweighted models.*

	(1) Anti-Intellectualism	(2) Anti-Intellectualism	(3) Anti-Intellectualism
Rural Res. Only	-0.05	**-0.08** **	**-0.08** **
	(0.04)	**(0.04)**	**(0.04)**
Income	-	-	0.03
			(0.04)
Party ID	-	-	**0.14*** **
			(0.03)
Age	-	-	**-0.15*** **
			(0.05)
Female	-	-	-0.01
			(0.02)
Black	-	-	0.04
			(0.04)
Hispanic	-	-	0.04

			(0.03)
Political Interest	-	-	-0.01
			(0.03)
Education level			-0.01
			(0.01)
Born Again Christian	-	-	**0.09*** **
			(0.02)
Treatment = 1	-0.04	**-0.05****	**-0.05****
	(0.03)	**(0.02)**	**(0.02)**
Treatment X Rural Res. Identifier	**0.14****	**0.16****	**0.13****
	(0.07)	**(0.06)**	**(0.06)**
Constant	**0.40*** **	**0.41*** **	**0.40*** **
	(0.02)	**(0.02)**	**(0.05)**
Adj. r2	0.02	0.01	0.19
N	359.00	359.00	336.00

*Above table predicts anti-intellectualism with the interaction between treatment group and rural respondent as the primary independent variable. Standard errors in parentheses. Significance levels are * < 0.05, ** < 0.01, and *** < 0.001. Bolded items indicate statistical significance. All variables have been recoded to range from zero to one. Model 1 data weighted to population benchmarks; Model 2 and 3 data are not weighted.*

Section D Appendix: Study 6 Experimental Replication Data

Sample Characteristics

Table A6.15: *Sample characteristics for December 2020 Lucid data (Study 6).*

Variable	December 2020 Lucid data
Female	52%
College Degree	40%
Black	11%
White	78%
Hispanic	15%
Democrat	43%
Republican	25%
Independent	25%
Mean Age	46
Median Income	$50-54,999
Rural (RUCA 7 - 10)	7%
Rural (Self-Identified) *	44%
N	495**

**Note: Rural here is defined as respondent specifying whether they lived or grew up in a small town or in a rural area.*
***Note: N = 495. Respondents were asked the attention check question; of 504 respondents, 9 failed. These respondents were removed.*

Number of Respondents Per Experimental Condition

Table A6.16: *Number of respondents per experimental condition, by rural/nonrural.*

	Control Group	Treatment Group
All respondents	264	240
Rural/Small Town only (RUCA 7-10)	23	13
Non-Rural/Small Town only (RUCA 7-10)	241	227
Rural only (self-identified – current or grew up rural or small town)	113	107

Non-rural only (self-identified – never rural or small town)	151	133

Cross-Tabulation of Objective, Subjective, and Identity Measures

For ease of interpretation, rural social identity has been divided into thirds.

Table A6.17. *Number of objective and subjective respondents with a rural social identity strength scale score of 0.33 or less.*

	Rural (Objective/RUCA)	**Non-Rural (Objective/RUCA)**
Rural (Subjective)	*0*	*27*
Non-Rural (Subjective)	*0*	*116*

Note: N = 143

Table A6.18. *Number of objective and subjective respondents with a rural social identity strength scale score between 0.33 and 0.67.*

	Rural (Objective/RUCA)	**Non-Rural (Objective/RUCA)**
Rural (Subjective)	***9***	***80***
Non-Rural (Subjective)	***3***	***98***

Note: N = 190

Table A6.19. *Number of objective and subjective respondents with a rural social identity strength scale score greater than 0.67.*

	Rural (Objective/RUCA)	**Non-Rural (Objective/RUCA)**
Rural (Subjective)	*23*	*79*
Non-Rural (Subjective)	*0*	*60*

Note: N = 162

The objective and subjective measures of rural residency are correlated at 0.26. The subjective rurality measure is correlated with rural social identity strength at 0.37, while the objective rurality measure (binary) is correlated with rural social identity strength at 0.27 (also 0.27 with the continuous objective measure of rurality).

Anti-Intellectualism OLS Regressions

This section verifies the correlations found in the experimental replication section by controlling for other factors using OLS regression models with anti-intellectualism as the dependent variable. The results are below.

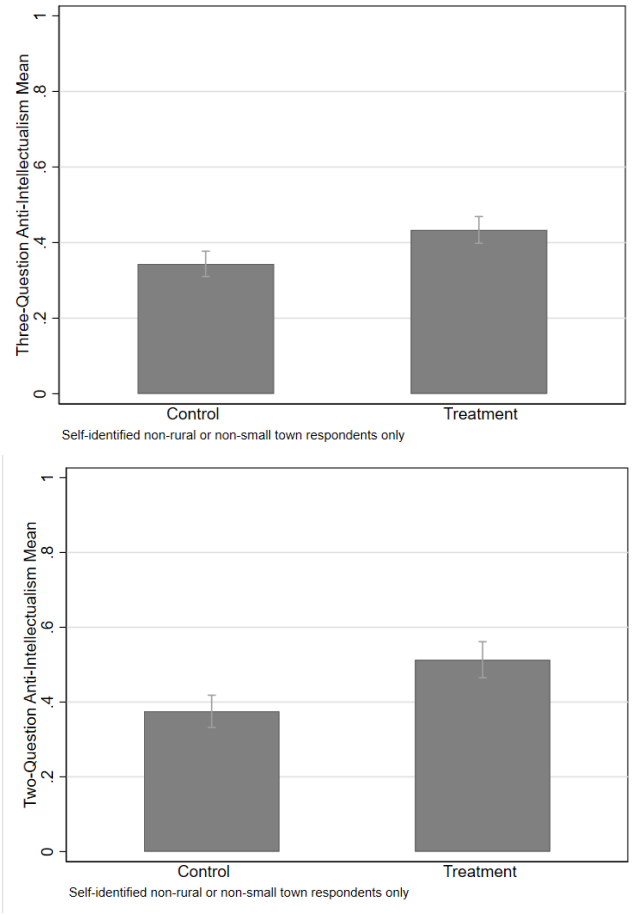
Table A6.20. *Predicting Anti-Intellectualism using Rural Designations and Control Variables.*

	Anti-Intellectualism (3-question) b/se	Anti-Intellectualism (2-question) b/se
Rural social identity	**0.22*** **	**0.30*** **
	(0.03)	**(0.04)**
Rural (subjective)	**-0.09*** **	**-0.14*** **
	(0.02)	**(0.03)**
Rural (objective)	-0.01	-0.03
	(0.04)	(0.05)
Female	-0.02	-0.03
	(0.02)	(0.02)
Age	-0.08	**-0.12***
	(0.04)	**(0.06)**
Black	0.04	0.06
	(0.03)	(0.04)
Hispanic	0.00	-0.01
	(0.03)	(0.04)
Income	-0.05	-0.04
	(0.03)	(0.04)
Education	0.01	0.00
	(0.05)	(0.06)
Republican	**0.05***	**0.08***
	(0.03)	**(0.03)**
Democrat	-0.02	-0.02
	(0.02)	(0.03)
Liberal	-0.04	-0.04
	(0.02)	(0.03)
Conservative	0.02	0.03
	(0.02)	(0.03)
Constant	**0.35*** **	**0.39*** **
	(0.04)	**(0.05)**
r2	0.18	0.21
N	463.00	463.00

Standard errors in parentheses, values re-coded from zero to one.
Bolded items statistically significant; significance levels at
** p < 0.05, ** p <0.01, and ***p < 0.001. All respondents included.*
Measures for control variables from Lucid demographic data,
except for liberal and conservative;
respondents were asked which of the following ideological labels
they identify with, and if respondents picked 'conservative' or 'liberal'
this is coded as a one for the respective variable.

Experimental Results for Non-Rural Respondents

Figure A6.5. *Mean Anti-Intellectualism Scores for Non-Rural Respondents Only (self-identified) According to Experimental Treatment Group.*



Note: left-hand graph shows the three-question anti-intellectualism scale means with control condition mean = 0.34 and treatment condition mean = 0.43. This difference in means is statistically significant according to a t-test (0.002). The right-hand graph shows the two-question anti-intellectualism scale means with the control condition = 0.38 and the treatment condition = 0.51. This difference in means is also statistically significant according to a t-test (< 0.0001).