Eudaimonic Well-Being and the Trump Vote: Unearthing the Psychological Roots of Racialized Economics

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ABSTRACT

We use well-being data from the Gallup Daily Poll and a measure of racial animus derived from Google search data to explain why racial identification became politically salient in the 2016 Presidential Election. We find that the oft-observed positive relationship between racial animus and Trump's vote share is eliminated by introducing an interaction between racial animus and a measure of the basic psychological need for relatedness. We also find that rates of worry have a strong and significant positive association with Trump's vote share, but that this is offset by high levels of relatedness. Together, these two results imply that racial voting behavior in 2016 was driven by a desperate grasping for in-group affiliation as a way of buffering against economic and cultural anxiety. Such behavior is well established in laboratory studies in self-determination theory and worldview defense theory. If voters have access to local sources of relatedness in the form of, for example, a church group or sports club, they are inoculated against ill-being. If they do not, then they may reach for broader but accessible sources of in-group identification such as race and nation. Trump's nativist policies and rhetoric appeal to such voters.

Keywords: well-being, voting, racialized economics, nativism, Trump

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Introduction

Why did Donald Trump win the 2016 Presidential Election? Numerous reasons were canvassed in the aftermath of the result. Among them were the emergent power of social media and fake news (Allcott and Gentzkow 2017), Russian interference (Hall Jamieson 2018), the gap between low and high educated whites (Schaffner et al 2017), lavish media attention on Trump, anti-incumbency (Sides et al 2018), economic anxiety (Autor et al 2016b), sexism (Valentino et al 2019), and racism (Hooghe and Dassonneville 2018). In a prominent recent review of the literature and the evidence, Sides et al (2018) acknowledge some role for these factors but argue that the key force behind Trump's victory was "racialized economics" and Trump's willingness and ability to leverage it. Racialized economics is the tendency among some voters to consider economic issues not through an individual lens but through a racial one instead. As Sides et al (2018, p. 8) explain:

> The important sentiment underlying Trump's support was not "I might lose my job" but, in essence, "people in my group are losing jobs to that other group". Instead of pure economic anxiety, what mattered was racialized economics.

In this paper, we explicate the psychological roots of racialized economics. We argue that there is a channel from economic shocks to nativist voting via psychological wellbeing. Self-determination theory (SDT, Ryan and Deci 2017), a school of clinical psychology, argues that psychological well-being is a function of three basic psychological needs: for autonomy, competence, and relatedness. When these are thwarted, people will try to compensate. As economic decline in America is substantially a function of exogenous forces of globalization and technological change, there is little individuals can do to bolster their feelings of autonomy and competence. They may therefore focus on relatedness. One way to bolster their feelings of relatedness is by affiliating with salient identity groups such as race and nation. Similarly, theories of so-called "worldview defense" (WDT) argue that when people feel worried they will double-down on their in-group affiliations (Holbrook et al 2011). In laboratory studies these typically overlap with broad identity markers like race and nation. Both literatures imply that economic decline, through its pernicious effect on psychological wellbeing, could encourage in-group bias. This provides some explanation for the emergence of nativist and racial sentiment leading into the 2016 Presidential election. We argue that Trump, with his "America First" and "Build a Wall" policies and his nativist rhetoric, fueled and harnessed these sentiments to secure the Presidency.

Honing our hypothesis, a key inference of SDT and WDT is that in-group bias is more likely to manifest as identification with a broad group like race or nation when more intimate sources of group identification, like a church group or sports club, are unavailable. In such circumstances, people reach in desperation for easily accessible identities, and broad group affiliations like race and nation fit the bill. Now sociologists have long noted that small, local sources of in-group identity, like bowling leagues and trade unions, have declined precipitously across America in recent decades (Putnam 2000, 2015). Religious affiliation and church attendance are similarly in free-fall (Pew Research Centre 2019). In line with the inferences of SDT and WDT, qualitative studies of Trump voters have tied this cultural decay to his success (Cramer 2016). A central thesis of Carney's (2019) *Alienated America* is that Trump had greater cut through in areas with low levels of social capital and weak social institutions incapable of structuring social life and fostering reciprocity. Similarly, in her

study of Tea Party supporters in Louisiana, Hochschild (2016, p. 225) writes that Trump's "supporters have been in mourning for a lost way of life". We therefore hypothesize that Trump should be successful in counties with high levels of worry and low levels of relatedness.

We test this hypothesis by combining rich individual-level well-being and socio-economic data from the Gallup Daily Poll with county-level data on economic indicators, racial animus, and election outcomes. Our measure of racial animus comes from Stephens-Davidowitz (2014) study of racism in the 2008 and 2012 US Presidential elections. It is derived from the frequency of Google searches including the word "ni****(s)" (henceforth, [word1]) between 2004 and 2007. Our county level economic indicators include an instrumental variable capturing rising exposure to trade shocks from China's entry into the world trading system (Autor et al 2013). We examine the impact of these variables on Trump's victory in 2016 while controlling for a long list of socio-economic items. We find that racial animus has a strong, positive association with Trump's vote share independently from worry and relatedness. However, when we interact relatedness with racial animus, the coefficient on racial animus turns negative and falls in significance. Meanwhile, the interaction term is positively and significantly associated with Trump's vote share. This suggests that people are relying on racial identification to bolster their sense of relatedness, in line with our hypothesis. In further support of our hypothesis, worry has a large and significant positive association with Trump's performance, but an interaction between worry and relatedness is negative, substantially offsetting the independent positive effects of worry and relatedness. In other words, Trump had substantial cut through in worried counties *except when* they had existing sources of relatedness. A final piece of supportive evidence is that that Trump performed worse than Romney in counties with high levels of community pride.

Conceptual Framework

Our conceptual framework draws on three streams of literature. We begin with the political science literature on racialized economics. We then review other political science scholarship on how status threat and aversion to change contributed to Trump's success. The second part of our conceptual framework reviews existing studies that illustrate how a well-being lens can illuminate Trump's success. While powerful, this literature struggles to explain why declining well-being engendered *identity voting* rather than merely anti-incumbent sentiment. For this, we need to bring in literatures on wellbeing from the eudaimonic tradition (Fabian 2019). We turn to these in the final part of our conceptual framework where we develop our hypothesis using SDT and WDT. These theories suggest a channel from trade shocks and other sources of anxiety to identity voting via psychological wellbeing and desperate attempts to improve it.

Racialized Economics

Donald's Trump's victory was underwritten by swings ("Obama defectors") in the "rust belt" states of Iowa, Wisconsin, Michigan, Ohio, and Pennsylvania (Farley 2019). Any explanation of Trump's win must explain this shift. These states have experienced substantial economic declines in recent decades owing predominantly to the impact of trade and technological

change on manufacturing employment (Teaford 1993, McClelland 2013, Autor et al 2013). Given this background, a natural early suspicion among analysts was that economic anxiety was a key force behind Trump's popularity in this region. However, while not dismissing it as an important factor in the 2016 election, the political science literature has found little support for a straightforward economic anxiety interpretation of the 2016 Presidential election result. It instead emphasizes more nuanced explanations like racialized economics.

As Sides et al (2018, p. 14) note, real incomes and consumer sentiment were rising rapidly for all income quintiles at the time of the election. Both unemployment and inflation were low. Moreover, in both 2012 and 2016, there was a weak statistical relationship between respondents' answers to questions about finances, job insecurity, and housing and health payments on the American National Election Survey (ANES) and their voting choices once partisanship, self-reported ideology, and views of racial inequality were accounted for. Views of trade as measured in the Views of the Electorate (VOTER) survey in 2011 had no relationship with voting in 2012 and 2016. Sides et al (p. 173) thus argue that while economic anxiety was on people's minds, it was not "activated" in the sense that it did not influence vote choice. More salient were changing attitudes on race and immigration among white Obama voters, the focus on identity-inflected issues throughout the election campaign, and Clinton and Trump's sharply divergent positions and rhetoric on these matters. These racial and nativist issues became "activated" and gave rise to racialized economics.

Sides et al (p. 175) define racialized economics as "the belief that undeserving groups are getting ahead while your group is left behind". These themes are stark in qualitative studies of Trump voters in Wisconsin and Louisiana (Cramer 2016, Hochschild 2016). Sides et al review statistical evidence that preference for Trump among the white voters who defected from Obama in the rust belt was weakly related to their own job security and but strongly related to their views regarding whether minorities were taking jobs from whites (Morgan and Lee 2018). Furthermore, a survey experiment in December of 2016 randomly allocated respondents to one of two questions: "Over the past few years, Blacks have gotten less than they deserve" and "Over the past few years, average Americans have gotten less than they deserve". There is a literature showing that "average American" is synonymous with "white" (Devos and Banaji 2016). 57 per cent of Clinton voters agreed with either statement. In contrast, while 64 per cent of Trump voters agreed that average American's had gotten less than they deserve, only 12 percent agreed that Blacks had gotten less than they deserve (Tessler 2016). In a similar experiment using 746 white respondents, Luttig et al (2017) found that respondents favorably disposed to Trump were more opposed to a mortgage relief program when primed with a picture of a Black man standing next to a foreclosure sign than the same picture featuring a white man. In contrast, the priming had no statistically significant effect among Clinton supporters.

These findings dovetail with other evidence that race and ethnicity were more strongly related to vote choice in 2016 than in previous elections. Trends in responses to racial inflected questions in the ANES and VOTER survey show growing polarization in voter perceptions of Democrats and Republicans on race and immigration issues (Sides et al 2018, pp. 168–171). White respondents to the surveys increasingly see Democrats as espousing the view that Black disadvantage is a function of inadequate state support whereas Republicans see it as a function of inadequate effort. Similarly, they see Democrats as believing that "illegal immigrants" contribute to the country while Republicans believe they are a net drain

on the economy. The power of these questions to predict vote choice rose between 2008–2016, suggesting that racial resentment became an electoral issue in 2016. The same effect is observed for voters' feeling about Muslims and their perception of discrimination against whites—these items became more strongly predictive of vote choice in 2016. Sides et al's evidence is corroborated by Schaffner et al (2018), who analyze data from surveys taken in October 2016 immediately before the election. They find a positive and significant relationship between dissatisfaction with one's economic situation and Trump voting, but the impact of racism is three times as strong in their data, as is that of sexism.

Two other papers from the political science literature are important to our analysis herein. The first is Mutz's (2018) study of status threat. Using panel data from 2012 and 2016, she finds only weak support for the economic hardship theory of Trump voting, and instead observes a strong role for perceptions of declining position among traditionally high-status Americans, notably white, male, Christians, and among those who perceive America's global dominance as threatened.

The second is Grossman and Thaler's (2018) study of aversion to change among elites versus members of the general public in Michigan. They measure aversion to change using two questions: "our country is changing too fast, undermining traditional American values", and "by accepting diverse cultures and lifestyles, our country is steadily improving". These questions correspond intuitively to the feelings of cultural decay and a "lost of way of life" identified by qualitative studies of Trump supporters (Carney 2018, Hochschild 2016, Cramer 2016). Grossman and Thaler find that the public is markedly more averse to social change than elites, and that aversion to change strongly predicts Trump support, outstripping the effect of economic attitudes, racial resentment, authoritarianism, and college education. Only partisan identification and ethnocentrism had more predictive power.

In summary, the political science literature points to identitarian sentiments around race, nation, and cultural change as being more important than economic anxiety in determining Trump's success. A question that follows naturally from this observation is why identitarian sentiment became so powerful in 2016 when racism and sexism have been trending downwards for decades (Pinker 2011). Sides et al (2018) emphasize Trump's willingness to activate these issues with his rhetoric and policy positions, but this leaves unexplained why these issues were heating up in the first place. This is especially puzzling given that the most important demographic in Trump's victory was voters defecting from Obama, the first Black President. In the following sections, we draw on literature from the study of well-being to find answers. We argue that racialized economics isn't specifically about race but rather in-groups and cultural identity.

Well-Being and Voting

There is a nascent literature studying the power of subjective well-being measures to predict voting behavior. Early works in this field include Liberini et al (2017, 2019) and Ward (2019, forthcoming-a). This workstream has recently turned its attention to the 2016 US Presidential election (Herrin et al 2018), inspired in part by Graham's (2017) analysis of subjective well-being (SWB) trends in America. She documented poor and declining SWB in US regions associated now associated with Trump support. The rust belt, for example, has high levels of

anger, worry, and depression and low rates of enjoyment, smiling, and optimism compared to coastal regions. Life satisfaction as measured on 0–10 scales is also markedly lower across the rust belt states, and health outcomes are worse. These findings align with the literature on "deaths of despair" (Case and Deaton 2015), which documents worsening life expectancy in rust belt regions owing to opioid addiction, obesity, smoking, depression, and stress. In more recent work, Graham and co-authors (Pinto et al forthcoming) explore the heterogenous effect of Trump's win on the subjective well-being of Republican and Democrat voters.

More relevant to our analysis here is a recent paper by Ward et al (forthcoming-b) using subjective well-being to explain Trump's electoral success. They hypothesize that populist rhetoric such as that employed by Trump and Bernie Sanders is more effective among emotional voters because of its affective resonance. They find support for this hypothesis, observing a strong correlation between life satisfaction and expected life satisfaction in five years' time with Trump voting. Also relevant is a paper by Obschonka et al (forthcoming) that finds Trump performed better in counties with high levels of neuroticism, especially anxiety and depression.

We augment this emerging literature using ideas from eudaimonic perspectives on well-being (Ryan et al 2008). While the subjective well-being lens is powerful, it struggles to get beyond anti-incumbent sentiment to explain why poor SWB led to the election of a *identitarian* President. It is intuitive that people who are unhappy with life and pessimistic about the future would seek a change of government—it's a straightforward way to put your life on a different track. What is surprising is why dissatisfied voters thought that a nativist candidate with racist and sexist rhetoric offered the best new track in 2016. Eudaimonic perspectives on well-being are characterized by an emphasis on *living*-well rather than *being*-well (Besser-Jones 2015)[4]. They are consequently grounded in models of human motivation and behavior that give rise to causal inferences about well-being. These can be mined for hypotheses about how well-being affects, among other things, voting behavior. By utilizing these theories, we hope to demonstrate their power to illuminate social phenomena and inspire SWB scholars to integrate them more thoroughly into their own paradigm.

Self-Determination Theory

SDT is a theory of human motivation that is highly influential in clinical, personality, and social psychology (Deci and Ryan 2000). It argues that humans have three basic psychological needs that underpin their motivations. These are for autonomy, relatedness and competence. Autonomy is the sense that one's behavior is volitional, that one is not

[4] There is at present an unfortunate tendency in the SWB literature to associate eudaimonic well-being with meaning and purpose (OECD 2013, Stone and Mackie 2013). This is erroneous. Neither the eudaimonic literature in philosophy associated with scholars in the Aristotelian tradition nor the eudaimonic literature in psychology associated with SDT and Waterman (2013) gives a central role to meaning and purpose. Indeed, SDT has explicitly argued that meaning is not a basic psychological need and presented empirical evidence to attest to this (Weinstein et al 2012). There is a literature on the importance of meaning for SWB, notably in the logotherapy tradition (Wong 2010, Hicks and King 2007, Steger et al 2013), but this should not be confused with eudaimonic well-being. Eudaimonic theories are about how one lives—well-being as a *process*—with the correct process emerging from human nature. Philosophical accounts emphasize humankind's unique capacity for reason and virtue. Psychological accounts instead emphasize evolutionary pressures that gave rise to psychological mechanisms encouraging fitness-enhancing behaviors like socialization.

controlled by external forces, and that one is free to pursue activities that align with and serve one's personal goals. Competence is the sense that one is skillful at activities that are necessary for one to flourish. And relatedness is the sense that one has nourishing, supportive, and reliable social connections.

Several large sample cross-cultural studies have found that nourishing the basic psychological needs improves wellbeing in terms of positive affect, life satisfaction, ease of motivation, vitality, self-esteem, and the absence of psychopathology, depression, anxiety, compartmentalisation, defensiveness and personality rigidity (Chen et al 2015, Church et al 2013, Sheldon et al 2004, 2009). These results have been extended to specific domains including the workplace (Baard et al 2004, Deci et al 2001, Ilardi et al 1993) and schools (Jang et al 2009). Variation in the degree to which basic needs are nourished predicts differences in objective and subjective indicators of wellbeing between individuals, and variation in the degree to which each need is nourished predicts changes in wellbeing within individuals (Sheldon et al 1996, Reis et al 2000, La Guardia et al 2000, Lynch et al 2009).

SDT is linked to our analysis in the following manner. We hypothesize that economic decline has a negative impact on autonomy and competence through unemployment and on relatedness through the channel of community disintegration. As discussed earlier, sociological studies have documented that sites of ongoing deindustrialization in America have experienced long term declines in economic vitality, population, quality of public services and urban amenities, civic organizations, and hope, and commensurate increases in deaths of despair, family disintegration, out-migration, and opioid addiction (Putnam 2000, 2015; Graham 2017; Hochschild 2016; Cramer 2016). Such symptoms of decline could be expected to reduce people's sense that they have people they can rely on and that the nation at large cares about them. Falling rates of civic participation and rising rates of mental illness might also make neighbors and other community members appear less functional, collaborative, and pleasant, further corroding feelings of relatedness.

SDT predicts that people whose basic psychological needs are under threat will seek to remedy their circumstances. The drivers of economic decline in America—technological change and globalization—are largely exogenous to affected communities so they have little power over them (Moretti 2012). As such, relatedness presents one of the few channels by which Americans disadvantaged by trade and other economic shocks can address their poor psychological well-being. We thus expect individuals in trade shocked areas to alter their behavior in ways that enhance their feelings of relatedness. One such behavioral change is to vote for identitarian candidates that give them a sense of belonging. SDT here explains the link from neuroticism and unhappiness to identity voting observed by Obschonka et al (forthcoming). We find some support for this hypothesis from Australia. According to data from *Australia Talks*, a representative survey of more than 50 000 Australians, 9 out of 10 supporters of Australia's far right nativist party, One Nation, report being lonely "all the time". In comparison, only around 2 out of 10 supporters of other parties report similar levels of loneliness (Haslam et al 2019). In the next section, we review literature from theories of "worldview defense" to explain why relatedness and identarian issues are bound together, especially when people feel threatened by external forces.

World View Defense Theories

There are four separate theories in social psychology that engage with the notion of "worldview defense": terror-management, uncertainty management, coalition threat, and unconscious vigilance. All of them posit that certain negative stimuli will provoke exaggerated, typically subconscious, affirmations of in-group identity and defensiveness against critiques of those groups. This response is termed "worldview defense". Terror management theory emphasizes reminders of one's inevitable death as provoking worldview defense (Greenberg et al 1997). The defense is an attempt to connect the individual to a culture that will persist after they die, providing a form of symbolic immortality. Uncertainty management instead emphasizes feelings of ambiguity and insecurity (McGregor et al 2001). It posits that worldview defense is an attempt to muster feelings of conviction and certainty by affirming one's existing values and identifications. Coalition theory argues that neither terror- nor uncertainty-management fit well within an evolutionary account of human psychology (Navarrete 2005). Worldview defense is better conceptualized as a general tendency to respond to negative stimuli by gravitating towards a social group for support and protection. Expressing loyalty to that group's normative structures is an unconscious action to rally its support to your side. Unconscious vigilance is in some ways complementary to the coalition perspective. It argues that worldview defense is an unconscious and automatic response to alarm cues from the environment that are communicated to the psyche through the affective system (Holbrook et al 2011). Like coalition theory, unconscious vigilance posits worldview defense as an attempt to garner social support by signaling in-group membership and loyalty.

All four stimuli associated with worldview defense could reasonably be expected to increase in frequency and severity in economically declining areas of the United States. Rising mortality associated with deaths of despair and the opioid epidemic could increase feelings of terror. Persistent unemployment, demographic and economic change, and stagnant wages could increase feelings of uncertainty. These items could equally prompt coalition-building urges (Kirkpatrick and Navarette 2010). We would expect unconscious vigilance to be heightened as economically depressed neighborhoods become more dilapidated and unsafe because of civic decline and opioid use (Putnam 2015).

Worldview defense would incline people to vote for candidates who appeal to in-group markers. However, we would expect this desire to be weaker among people whose in-groups are relatively micro, like churches or neighborhood alliances. These people would not associate national politicians speaking to broad identities like race and nation with their local, personal in-groups. As such, we would not expect people with high levels of relatedness to be provoked into identity voting by worldview defense.

Hypotheses

Our conceptual framework brings together many streams of research but produces a relatively succinct hypothesis. We posit that, owing to the heterogenous distribution of their impacts, negative economic shocks have harmed basic needs in some communities of America even as they have helped basic needs in others. This gives rise to *worry*, which provokes worldview defense. We further posit that communities so affected will seek to bolster their sense of

relatedness to buffer themselves against the negative well-being effects associated with thwarted needs. Following both SDT and worldview defense theories, we posit that this reach for relatedness will involve deepening affiliations with in-groups. Where no such in-groups are ready to hand, because of dramatic community decline for example, individuals will seek to deepen their affiliation with more macro-level in-groups, namely race and nation. One way they can do this is through political allegiance to nativist candidates like Trump. His rhetoric plugs directly into the psychology of such voters with his emphasis on "Make America Great Again", which speaks to identity and to rewinding change. We therefore hypothesize that *Trump's vote share will be positively predicted by county rates of worry but that this relationship will weaken when counties also have high levels of relatedness.* This is because voters with strong sources of relatedness ready to hand do not need Trump's nativist rhetoric to give them a sense of in-group support. We further hypothesize that racial voting in 2016 was an attempt to bolster feelings of relatedness. Therefore, the effect of an interaction between racial animus and relatedness should swamp the effect of racial animus on its own.

Data

To test our hypothesis, we need four kinds of data: well-being data at the individual level, some measure of racial animus, socio-economic data at the individual and county level, and election results at the county level (see appendix A5 for summary stats). For election results, we use publicly available data from Dave Leip's (2016) Atlas of US Presidential Elections.

For well-being and socio-economic data at the individual level, we use the Gallup Daily Poll from 2014 until election day 2016. This survey is a random, representative sample of 500 American adults taken daily by landline (40%) and mobile phone (60%), providing for an exceptional large and high-quality sample. At a minimum, our individual level variables are drawn from a sample of over 470 000 observations.

The Daily Poll contains a rich set of well-being questions including whether respondents experienced worry, stress, or pain yesterday, whether they have been treated for depression in the past month, their life satisfaction on a scale from 0-10, and what they expect their life satisfaction to be in 5 years' time. We follow Graham (2017) and use this last question as a measure of optimism. The Poll also includes a full battery of socio-economic, demographic, health, and political allegiance questions.

While the Gallup data does not include questions drawn directly from SDT's basic psychological needs (BPN) survey (Deci and Ryan 2000, Gagné 2003), several questions in the Gallup survey are close analogues. Table 1 lays out the 14 questions that make up the basic psychological needs survey for competence and autonomy. We report the analogous question from the Gallup survey in column 2. We have only poor proxies for the autonomy items and thus exclude this need from our analysis. However, we have close analogues for 4 out of 6 of the competence questions and 7 relatedness questions that effectively parallel questions in the BPN questionnaire. The individual questions all ask for a response on a 1–5 Likert scale where higher numbers indicate greater agreement with the associated statement. We create variables for "competence" and "relatedness" by summing the responses to the individual questions. As there are only 4 competence questions this variable runs from 4–20 while the relatedness variable runs from 7–35.

Table 1: Comparison between Basic Psychological Needs Questionnaire and Gallup Survey

Basic Psychological Need Questionnaire	**Gallup Daily Poll**
COMPETENCE	*COMPETENCE (4–20)*
Often, I do not feel very competent	
People I know tell me that I am good at what I do	
I have been able to learn interesting new skills recently	1–5 Scale: I learn or do something interesting every day
Most days I feel a sense of accomplishment from what I do	1–5 Scale: I felt active and productive in the last week
In my life I do not get much of a chance to show how capable I am	1–5 Scale: I get to use my strengths to do what I do best everyday
I often do not feel very capable	1 – 5 Scale: In the last 12 months, I have reached most of my goals
RELATEDNESS	*RELATEDNESS (7–35)*
I really like the people I interact with	1–5 Scale: I cannot imagine living in a better community 1–5 Scale: Community Pride
I get along well with people I come into contact with	1–5 Scale: The city/area where I live is perfect for me
I pretty much keep to myself and don't have a lot of social contacts	1–5 Scale: Always make time for vacations with family and friends
I consider the people I regularly interact with to be my friends	1–5 Scale: My relationship with my partner is stronger than ever
People in my life care about me	1–5 Scale: My friends and family give me energy every day
There are not many people that I am close to	
The people I interact with regularly do not seem to like me much	
People are generally pretty friendly towards me	1–5 Scale: I have been given recognition for improvements I have made to the neighborhood

To track racism, we use Stephens-Davidowitz's (2014) measure of racial animus. This is drawn from Google searches for [Word 1] between 2004 and 2007 measured at the Designated Market Area (DMA) level. We crosswalk DMA's to counties using Sood (2016). Google search histories are an appealing means of capturing racial animus because they are unlikely to suffer from social censoring and can aggregate data over a large area. Using data from 2004–2007 prevents the measure from being confounded by rising dislike for Obama during his Presidency. Stephens-Davidowitz (2014) found that racial animus cost Obama roughly 4 percentage points of the national popular vote in 2008 and 2012. This estimate is 1.5 to 3 times larger than survey-based estimates.

We utilize a range of sources for county-level socio-economic data. We use US Bureau of Labour Statistics (BLS 2019) data for county-level unemployment and Bureau of Economic

Analysis (BEA 2019) data for county-level GDP growth rates. Our county type data (large, medium, and small metropolitan, micropolitan, rural metro-adjacent, and rural) come from the National Centre for Health Statistics (NCHS 2019). County-level poverty rates are drawn from the American Community Survey via the US Census Bureau website (CB 2019).

We get data on industrial heritage and trade shocks at the commuting zone (CZ) level from Autor et al's (2013) study of the impact of the China's entry into World Trading System on US labor markets (See Dorn 2019 for data). There are 722 CZs in the United States, typically comprised of several counties. CZs are designed to reflect a local labor market based on where people in a region transit to on a regular basis for employment. Autor et al's data includes industrial heritage variables for the education level of the labor force in each CZ in 1990, the share of jobs there that could be easily outsourced or automated, the share of workers who were female or foreign born, and the share of the labor force employed in manufacturing. Autor et al also use UN Commtrade data to develop a variable capturing rising exposure to import competition from China per worker in commuting zones from 1990–2007, where imports are apportioned to the commuting zone according to its share of national industrial employment. It is important to note that this variable is not imports to a commuting zone. The variable instead captures rising competitive pressure on industries in commuting zones that produce goods that are increasingly imported cheaper from China over the 1990–2007 period. Formally:

$$\Delta IPW_{ui1990-2007} = \sum_{j} \frac{L_{ij1990}}{L_{uj1990}} \frac{\Delta M_{ucj1990-2007}}{L_{i1990}}$$

Where L_{it} is the start of period employment in year t in commuting zone i, and ΔM_{ucjt} is the observed change in US (subscript u) imports from China (subscript c) in industry j between the start and end of the period 1990–2007. The difference in ΔIPW_{uit} across commuting zones thus stems from variation in local industrial structure at the start of period t. Intuitively, commuting zones with more manufacturing industries will be more affected by rising competition from imports, especially if they themselves do not utilize imported components. To overcome issues of endogeneity, Autor et al (2013, p. 2129) employ an instrumental variables strategy. They instrument for growth in Chinese imports to the United States using the contemporaneous composition and growth of Chinese imports in eight other developed countries. We make use of this same instrument in our analysis.

Autor et al (2013) measure the impact of pressure from imports on the level of wages and employment across commuting zones. In contrast, our election analysis takes place at the county level. We therefore crosswalk commuting zones to counties using US Department of Agriculture codes (USDA 2019) and cluster standard errors at the commuting zone level.

Empirical Strategy

We pool individual level responses in the Gallup poll by county[5] from 2014 to election day in 2016 and estimate two-stage least squares models at the county level of the following form:

[5] Some readers may be concerned about analysing county level outcomes using pooled individual-level data. This is a common problem in empirical studies of election outcomes. Unfortunately, our data only has party affiliation information and not voting intention. We don't think Republican affiliation is a good proxy for Trump

$$EO_c = (KI_c \times R_c) + r_c + C_c + KI_c + X_c + Z_c + W_c + e_c$$

Where:

EO_c is an election outcome at the county level: Trump's vote share or the change in Republican vote share.

KI_c is a vector of 3 key indicator variables. The first is the instrumental variable for trade exposure ΔIPW_{uit}. The second is average level of worry in a county. And the third is racial animus at the county level.

R_c is the average level of relatedness from 7–35 among respondents in county *c*, measured using the sum of the 7 individual 1–5 scale relatedness sub-variables.

r_c is a vector of the 7 relatedness sub-variables. We include each variable separately rather than relatedness on its own to see whether they have heterogenous relationships with our outcome variables of interest.

C_c is the average level of competence from 4–20 among respondents in county *c*, measured using the sum of the 4 individual 1–5 scale competence sub-variables.

X_c, Z_c and W_c are vectors of control variables. X_c and Z_c correspond to county-level socio-economic and industrial heritage items that we have already discussed, and dummy variables for census region. W_c is the average level of the following individual-level variables in county *c* (see appendix table A1 for a full specification):

- Life satisfaction as measured on 0–10 scale
- Optimism, more precisely expected life satisfaction in 5 years' time on a 0–10 scale
- A dummy variable for whether the individual was recently treated for depression
- Two dummy variables for whether the individual experienced a lot of pain or stress yesterday, respectively
- A variable for reference-group effects and inequality sensitivity, namely: "Relative to your peers, how satisfied are you with your standard of living on a scale from 1–5"
- Income measured using 12 separate dummy variables. The first 10 categories correspond to monthly income grades in increments of $1000. Category 11 equals 1 if a respondent refused to report their income but stated that they have trouble purchasing food or health care. Category 12 captures respondents who don't know their income.
- Three separate dummy variables for self-reported unemployed or underemployed, and out of labor force status. Underemployed is defined in the Gallup data as working part time but wanting to work full time. We define out of labor force as someone who says they are not looking for work but is of prime working age.
- Dummy variables for Black, Hispanic, Asian, and other race (white is the omitted racial category).

voting. His success involved activating voters who don't typically show up on election day and convincing Obama voters to defect. As such, revealed preference in county election outcomes is a better indication of voters' intentions in a county than party affiliation.

- A dummy variable for labor union membership
- Dummy variables for membership of age categories from 25–34, 45–54, 55–64, and 65+ (18–25 omitted).
- A dummy variable for whether the respondent is male
- Dummy variables for education level from high school to a postgraduate degree, plus a separate category for education unknown (high school drop-out omitted).
- 4 dummy variables for marital status with married as the omitted category
- Dummy variables capturing different levels of church attendance running along weekly, monthly, seldom, and never.
- Dummy variables for party identification—Democrat, lean Democrat, Republican, lean Republican, and independent. We use no affiliation as the omitted category.

We cluster standard errors at the commuting zone level and apply sampling weights supplied by the Gallup organization.

If our hypothesis is correct, then we should see two sets of results. First, the interaction between racial animus and relatedness should be a more powerful predictor of Trump's success than racial animus on its own. This is because Trump's victory was driven by more people trying to get their relatedness from racial identification.

Second, the coefficient on worry should be positive and significant, whereas the interaction between worry and relatedness should be negative. This would suggest that high levels of relatedness work against the tendency of worried individuals to vote for Trump to bolster their feelings of in-group identification.

We can test whether economic anxiety leads to Trump voting through the channel of relatedness and worldview defense in a similar way. If trade exposure contributes to Trump's performance, as found by Autor et al (2016b), then the coefficient on the instrument should be positive and significant. If the contribution of this economic anxiety to Trump's vote share is driven by worldview defense, then the coefficient on the interaction between relatedness and trade exposure should be negative.

Results

Tables 2 and 3 report selected results from our regression analyses (see appendix table A1 and A2 for full results) for Trump's vote share and the change in Republican vote share between 2012 and 2016, respectively. We examine the change in vote share because Trump seems to have activated different voters to those traditionally associated with the Republican party (Sides et al 2018). We ideally want to see who turned out for Trump but not Romney.

Columns 1 and 2 report results from IV regressions, whereas columns 3 and 4 correspond to OLS results. The trade terms are not statistically significant and the industrial heritage terms, when significant, have very small coefficients. As such, we also report results from OLS regressions in columns 3 and 4 that exclude the trade and industrial heritage variables so that we can cluster at the county level. This is sensible because our hypothesis is about local phenomena while commuting zones are very large areas.

Table 2: Psychological Well-Being and Trump's Vote Share in 2016

VARIABLE/MODEL	(1) IV	(2) IV	(3) OLS	(4) OLS
Trade Exposure	–0.0118	–0.0009		
	(0.0136)	(0.0142)		
Trade_Exposure*Relatedness	0.0005	0.0000		
	(0.0005)	(0.0006)		
Experienced WORRY yesterday	0.2852	0.3764*	0.3075*	0.4173**
	(0.1896)	(0.1908)	(0.1553)	(0.1599)
Worry*Relatedness	–0.0118	–0.0154*	–0.0128*	–0.0171**
	(0.0074)	(0.0075)	(0.0061)	(0.0063)
Racial Animus	0.0005**	–0.0043*	0.0009***	–0.0032*
	(0.0002)	(0.0017)	(0.0001)	(0.0014)
Racial_Animus*Relatedness		0.0002**		0.0002**
		(0.0001)		(0.0001)
I can't imagine living in a better community	0.0017	–0.0068	0.0045	–0.0032
	(0.0081)	(0.0085)	(0.0068)	(0.0073)
Community pride	0.0016	–0.0078	0.0037	–0.0050
	(0.0099)	(0.0103)	(0.0082)	(0.0087)
The city/area where I live is perfect for me	0.0004	–0.0087	0.0039	–0.0050
	(0.0089)	(0.0099)	(0.0078)	(0.0084)
Make time for vacations with family and friends	–0.0098	–0.0190*	–0.0070	–0.0155*
	(0.0068)	(0.0076)	(0.0055)	(0.0063)
My relationship with my partner is stronger than ever	0.0196*	0.0096	0.0200**	0.0107
	(0.0080)	(0.0088)	(0.0071)	(0.0078)
My friends and family give me energy	0.0084	0.0002	0.0102	0.0028
	(0.0094)	(0.0097)	(0.0078)	(0.0082)
Recognition for improvements to the neighborhood	0.0056	–0.0038	0.0078	–0.0007
	(0.0066)	(0.0075)	(0.0052)	(0.0060)
Competence	–0.0008	–0.0010	–0.0015	–0.0016
	(0.0032)	(0.0032)	(0.0027)	(0.0027)
Optimism	–0.0051	–0.0041	–0.0053	–0.0043
	(0.0040)	(0.0040)	(0.0036)	(0.0036)
Life Satisfaction	0.0102*	0.0099*	0.0100*	0.0099*
	(0.0048)	(0.0048)	(0.0042)	(0.0042)

*: Significant at the 5% level
**: Significant at the 1% level
***: Significant at the 0.1% level

Our results corroborate our hypothesis. In columns 1 and 3 we report results from a regression featuring worry, worry interacted with relatedness, and racial animus. As predicted, worry is positively associated with Trump's vote share but the interaction between worry and relatedness has a negative association. Racial animus is positively associated with Trump's vote share, as is standard. However, when we introduce an interaction between racial animus and relatedness in columns 2 and 4, the coefficient on racial animus turns negative and falls in significance. The new interaction term meanwhile is positive and highly significant. The results for worry and the interaction between worry and relatedness also increase in size and significance once the interaction between racism and relatedness is introduced. These powerful and consistent effects of relatedness emerge despite the

individual relatedness items having mixed signs and rarely achieving statistical significance. Together, the results imply that people seek to bolster their feelings of relatedness to combat their anxiety and that they rely on racial identification for this.

The switch in the sign of racial animus might seem counterintuitive at first, but it jibes with the analysis of (Grimmer and Marble 2019). They find that Trump received fewer votes than Romney from whites with the highest levels of racial resentment. Trump's success stemmed from rising racial identification among more moderate white voters. Our results suggest that this trend is driven by psychological well-being, specifically the need for relatedness in the face of economic and cultural decay, rather than prejudice.

Table 3: Psychological Well-Being and the Change in Republican Vote Share 2012–2016

VARIABLE/MODEL	(1) IV	(2) IV	(3) OLS	(4) OLS
Trade Exposure	–0.0017 (0.0047)	0.0015 (0.0049)		
Trade_Exposure*Relatedness	0.0001 (0.0002)	–0.0000 (0.0002)		
Experienced WORRY yesterday	0.1211 (0.0758)	0.1481* (0.0752)	0.1081 (0.0667)	0.1515* (0.0687)
Worry*Relatedness	–0.0061* (0.0030)	–0.0072* (0.0030)	–0.0056* (0.0026)	–0.0074** (0.0027)
Racial Animus	0.0004*** (0.0001)	–0.0011 (0.0007)	0.0003*** (0.0001)	–0.0013* (0.0006)
Racial_Animus*Relatedness		0.0001* (0.0000)		0.0001** (0.0000)
I can't imagine living in a better community	0.0035 (0.0031)	0.0010 (0.0033)	0.0036 (0.0029)	0.0005 (0.0031)
Community pride	–0.0178*** (0.0037)	–0.0206*** (0.0040)	–0.0190*** (0.0035)	–0.0225*** (0.0037)
The city/area where I live is perfect for me	0.0098** (0.0034)	0.0072 (0.0037)	0.0107** (0.0034)	0.0072* (0.0036)
Make time for vacations with family and friends	–0.0022 (0.0022)	–0.0049 (0.0027)	–0.0022 (0.0024)	–0.0055* (0.0027)
My relationship with my partner is stronger than ever	0.0110** (0.0033)	0.0080* (0.0037)	0.0106*** (0.0030)	0.0069* (0.0034)
My friends and family give me energy	–0.0033 (0.0032)	–0.0057 (0.0034)	–0.0042 (0.0034)	–0.0072* (0.0035)
Recognition for improvements to the neighborhood	0.0029 (0.0025)	0.0001 (0.0030)	0.0035 (0.0022)	0.0002 (0.0026)
Competence	0.0001 (0.0011)	0.0001 (0.0011)	0.0006 (0.0011)	0.0006 (0.0011)
Optimism	–0.0038* (0.0015)	–0.0035* (0.0015)	–0.0042** (0.0015)	–0.0038* (0.0015)
Life Satisfaction	0.0018 (0.0018)	0.0017 (0.0018)	0.0020 (0.0018)	0.0020 (0.0018)

*: Significant at the 5% level
**: Significant at the 1% level
***: Significant at the 0.1% level

This pattern of results carries over to the change in Republican vote share between the 2012 and 2016 elections, reported in table 3. The racism–relatedness interaction is positive and significant, and its introduction into the model turns the coefficient on racism negative and eliminates its significance. It also boosts the size and significance of the estimates for worry and the worry–relatedness interaction.

An additional result from table 3 worth underlining is that community pride has a strong, negative, and highly significant association with the change in Republican vote share. This suggests that cohesive, culturally healthy communities were less motivated by Trump's rhetoric.[6] Curiously, the coefficient on "the city/area where I live is perfect for me" is positively associated with Trump's vote share. We can only speculate as to why this variable has the opposite sign to community pride. We suspect that city/area captures sentiment about where people live but not how engaged they are with community in their neighborhood. Alternatively, city/area might capture people's commitment to left behind places where their needs for relatedness aren't met. In any case, the coefficient on city/area is only a third the size of the community pride coefficient and is less statistically significant.

Similarly, we can only speculate as to why "my relationship with my partner is stronger than ever" is positively associated with Trump's vote share. Higher rates of married within county is positively associated with Trump's vote share and relationship strength may overlap with marriage. However, that leaves to be explained why marriage is associate with Trump.

Our other results are broadly in line with the literature. We find that Trump's vote share is positively associated with low- and middle-class incomes, rural electorates, white-majority electorates, less educated voters, and Republican partisans. Unlike Ward et al (forthcoming-b), we found a modest, positive relationship between higher life satisfaction and voting for Trump. We replicate their result that more optimistic people were less likely to turn out for Trump than Romney, but our coefficient is quite small. Our results for optimism and life satisfaction are like those of Graham and Pinto (2019). They argue that the inverse signs on these coefficients reflect happy peasant and frustrated achiever dynamics. People in left behind parts of America have made peace with their lot, hence their relatively high life satisfaction. However, they have no hope for the future, hence their low levels of optimism.

Our results provide mixed support for an economic anxiety hypothesis. On the one hand, a negative assessment of the state of the economy has a strong, positive association with Trump's vote share. On the other hand, unemployment and poverty rates at the county level have a negative association. In any case, the large coefficient on worry despite our inclusion of a long (but not exhaustive) list of controls for economic issues suggests that people are also anxious about non-economic matters. We speculate that at least some of this is cultural anxiety, which includes status threat and aversion to change, but we do not have the means to test this suspicion.

[6] We were concerned that this result was driven by high rates of Mormon turnout for Romney's historic candidacy in 2012. We investigated using data from the Association of Religion Data Archives (ARDA 2019) religious congregations and membership study 2010. We found that excluding counties with rates of Mormonism per 1000 population in the top decile barely affected the coefficient on community pride. It shrunk from 0.02 to 0.018 and remained statistically significant at the 0.1% level.

Robustness check—The 2012 Election

One concern with our model is that it might be predictive of elections *in general* and not associated in some special way with Trump's electoral appeal. To this test hypothesis, we replicate our analysis for the 2012 election contest between Mitt Romney and Barack Obama. We use Obama's vote share and the change in Democratic vote share as outcome variables. We face tighter data limitations in this exercise than in our main analysis as the relatedness variables do not appear in the Gallup data until 2013 and half of them arrive in 2014. In addition to having fewer questions to build our relatedness variable, having only a year of data means that some counties simply aren't sampled. Our sample size consequently falls from 3049 to 2572. This is a major concern because Trump is more popular in small, rural electorates that are more likely to be missing from our sample here.

Despite these concerns, the results, summarized in tables 4 and 5 (full results in Appendix tables A3 and A4), are encouraging for our story. The pattern of results repeats itself, but the signs on the key variables are reversed from our primary analysis and they have no predictive power for the change in Democratic vote share. Focusing on the vote share analysis, we need to zoom in on column 2—the IV model—because trade exposure and the interaction between trade exposure and relatedness were significant in 2012. This itself is a major difference from 2016. The negative coefficient on trade exposure but positive coefficient on the interaction term supports our theory that relatedness buffers against economic anxiety. However, because Romney was not a nativist candidate, this result does not support our identity-voting hypothesis.

Table 4: Psychological Well-Being and Obama's Vote Share in 2012

VARIABLE	**(1) IV**	**(2) IV**	**(3) OLS**	**(4) OLS**
Trade Exposure	–0.0118 (0.0084)	–0.0218* (0.0095)		
Trade_Exposure*Relatedness	0.0012 (0.0008)	0.0021* (0.0009)		
Experienced WORRY yesterday	–0.2479* (0.1183)	–0.2633* (0.1179)	–0.2713** (0.1041)	–0.2867** (0.1046)
Worry*Relatedness	0.0252* (0.0112)	0.0268* (0.0112)	0.0268** (0.0099)	0.0283** (0.0100)
Racial Animus	–0.0002 (0.0002)	0.0036** (0.0013)	–0.0007*** (0.0001)	0.0009 (0.0011)
Racial_Animus*Relatedness		–0.0004** (0.0001)		–0.0002 (0.0001)
The city/area where I live is perfect for me	–0.0223** (0.0074)	–0.0035 (0.0100)	–0.0175** (0.0058)	–0.0079 (0.0088)
My friends and family give me energy	–0.0223** (0.0078)	–0.0040 (0.0101)	–0.0185** (0.0068)	–0.0091 (0.0093)
Recognition for improvements to the neighborhood	–0.0103 (0.0062)	0.0081 (0.0093)	–0.0079 (0.0050)	0.0014 (0.0081)

*: Significant at the 5% level
**: Significant at the 1% level
***: Significant at the 0.1% level

Of greater import on that front is that the coefficient on racism is 17% smaller than in our primary analysis while the coefficient on the interaction term is twice is as large. It seems that people who got their relatedness from racial identity unsurprisingly despised Obama (Piston 2010). Meanwhile, the coefficient on worry in columns 2 and 4 is around 30% smaller than in our primary analysis while the coefficient on the worry–relatedness interaction is around 40% larger (though these differences are not statistically significant). While open to debate, our interpretation of these results is that voter dynamics were similar but meaningfully different in the 2016 election compared to 2012. We see the larger coefficient on the worry–relatedness interaction term in 2012 as indicating that sources of relatedness other than racial identity were stronger then and better able to placate worry than in 2016. The seeds of racialized economics were ready for further economic and cultural decay and Trump's candidacy to germinate them. This jibes with Sides et al (2018) and Grimmer and Marble's (2019) evidence that Trump's success was a consequence of rising racial identification among historically more moderate whites. It also aligns with table 5. The null results there suggest that the power of racism, worry, and relatedness only start to emerge in 2012.

Table 5: Psychological Well-Being and the Change in Democrat Vote Share 2008–2012

VARIABLE	**(1) IV**	**(2) IV**	**(3) OLS**	**(4) OLS**
Trade Exposure	–0.0010 (0.0023)	–0.0014 (0.0029)		
Trade_Exposure*Relatedness	–0.0000 (0.0002)	0.0000 (0.0003)		
Experienced WORRY yesterday	–0.0009 (0.0291)	–0.0016 (0.0289)	–0.0053 (0.0271)	–0.0050 (0.0272)
Worry*Relatedness	0.0001 (0.0028)	0.0002 (0.0027)	0.0004 (0.0026)	0.0003 (0.0026)
Racial Animus	–0.0000 (0.0001)	0.0001 (0.0005)	–0.0001*** (0.0000)	–0.0002 (0.0003)
Racial_Animus*Relatedness		–0.0000 (0.0000)		0.0000 (0.0000)
The city/area where I live is perfect for me	–0.0034* (0.0016)	–0.0026 (0.0027)	–0.0034* (0.0015)	–0.0036 (0.0023)
My friends and family give me energy	–0.0014 (0.0018)	–0.0007 (0.0027)	–0.0015 (0.0018)	–0.0017 (0.0024)
Recognition for improvements to the neighborhood	0.0008 (0.0013)	0.0016 (0.0026)	0.0004 (0.0013)	0.0002 (0.0021)

*: Significant at the 5% level
**: Significant at the 1% level
***: Significant at the 0.1% level

General Discussion

An obvious question to ask is whether the relationships we observe around relatedness and voting behavior are causal in nature. Our empirical methods certainly do not provide causal identification. This is unfortunate, but our research question is highly resistant to causal

analysis. The 2016 election only occurred once, which rules out most causal identification methods (difference-in-difference, fixed effects, and regression discontinuity designs). Instrumental-variable methods are feasible, but it is hard to imagine something that varies with worry or community health but does not affect people's voting decisions. As such, we adopt a cautious perspective. The theories that form the core of our conceptual framework—SDT and WDT—are grounded in extensive experimental evidence. We have good data on individual well-being and a very large sample size, and we employ a large body of control variables. Our hypothesis more broadly jibes with qualitative studies of voters in districts associated with support for Trump. Our study can thus be thought of as a falsification exercise for these studies, one that they pass. We feel that our results call for greater quantitative inquiry into the effect of cultural identity, community, and relatedness on political behavior.

There are multiple lines of research that could complement our analysis, but they all face data challenges. To support the view that the decline of relatedness lies behind the rise of identity politics, it would be helpful to study the popularity of identitarian candidates over time in counties with higher and lower levels of relatedness. For this, researchers would need data on relatedness going back earlier than 2013. Alternatively, researchers could examine elections to offices other than President in the years since 2013. We suspect that there would be some challenges with respect to sample size in many cases, but state elections might be worth looking into as a starting point. Finally, it would be helpful to examine identity voting trends on the political left.

One last point to raise is the implications of our results. We wonder whether deep structural issues affecting worry and relatedness drive politicians or vice versa. Pundits have repeatedly noted that Trump made his campaign team listen to hundreds of hours of talkback radio to get a sense for the electorate (Sides et al 2018). This suggests that he is responding to realities on the ground. Yet much has also been made of Russian attempts to ferment polarization and anxiety during the 2016 campaign (Hall Jamieson 2018). Even greater volumes of ink have been spilled lamenting the influence of Fox News, MSNBC, and talkback radio in engendering similar feelings (Rosenwald 2019). Political actors might be creating these feelings of anxiety and racial identification rather than responding to them. The source of these feelings determines how one should act if one wants to restore liberal norms in America.

Conclusion

This paper extended the literature on the causes of Trump's victory in the 2016 US Presidential election by explaining the psychological roots of racialized economics. We argued that economic and cultural decay are fostering anxiety in left-behind parts of America. Worldview defense theories argue that a natural, often subconscious response to such anxiety is to bolster feelings of in-group affiliation. Self-determination theory similarly predicts that people feeling mentally unwell will seek to improve their sense of relatedness. People with local, ready-to-hand sources of relatedness will be buffered against anxiety. However, those without immediate access to in groups that can provide relatedness may reach in desperation for salient and accessible but broader in groups, such as racial and national identity. Trump might appeal to such individuals with his America First, pro-white and anti-immigrant

rhetoric and policy positions. We therefore hypothesized that Trump should be more electorally successful in counties with high rates of worry and low rates of relatedness. We further hypothesized that an interaction between racial animus and relatedness should swamp the effect of racial animus alone, as this would indicate that rising racial sentiment reflected people desperately seeking relatedness.

Our results supported this hypothesis. We found a strong, positive relationship between rates of worry and Trump's vote share, and a moderate, negative relationship between an interaction of worry with relatedness and Trump's vote share. Furthermore, introducing an interaction between relatedness and racial animus reversed the sign on the racial animus variable and reduced its significance while the interaction term was positive and highly significant. Similar relationships were observed between these variables and the change in Republican vote share between 2012 and 2016. While our methods do not allow for causal identification, our results provide suggestive evidence for the importance of worldview defense and relatedness in Trump's victory. Racialized economics might be less about outright prejudice—a charge that struggles to stick to Obama defectors—and more about meeting needs for relatedness to support psychological well-being.

Works Cited

ARDA (2019). *Religious Congregations and Membership Study 2010 County File*. Association of Religion Data Archives. Retrieved on 20/11/2019 from: http://www.thearda.com/Archive/Files/Downloads/RCMSCY10_DL2.asp

Allcott, H. and Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, vol. 31, no. 2, pp. 211–36

Autor, D.; Dorn, D. and Hanson, G. (2013). The China Syndrome: Local Labour Market Effects of Import Competition in the United States. *American Economic Review*, vol. 103, no. 6, pp. 2121–2168

Autor, D.; Dorn, D.; Hanson, G. and Majlesi, K. (2016a). Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure. *NBER Working Paper #22637*.

Autor, D.; Dorn, D.; Hanson, G. and Majlesi, K. (2016b). A Note on the Effect of Rising Trade Exposure on the 2016 Presidential Election. *NBER Working Paper #22637*.

Baard, P.; Deci, E. and Ryan, R. (2004). Intrinsic Need Satisfaction: A Motivational Basis of Performance and Well-Being in Two Work Settings. *Journal of Applied Social Psychology*, vol. 34, no. 10, pp. 2045–2068

BEA (2019). *Prototype Gross Domestic Product by County, 2012–2015*. United States Bureau of Economic Analysis. Retrieved on 19/11/2019 from: https://www.bea.gov/data/gdp/gdp-county

Besser-Jones, L. (2015). Eudaimonism. In G. Fletcher (ed.), *The Routledge Handbook of Philosophy of Well-Being*, pp. 187–196. Routledge.

BLS (2019). *Local Area Unemployment Statistics*. United States Department of Labor. Retrieved on 19/11/2019 from: https://www.bls.gov/lau/

CB (2019). *Poverty Rates by County 2013–2016 Based on American Community Surveys*. US Census Bureau. Retrieved on 19/11/2019 from https://www.census.gov/topics/income-poverty/poverty/data/data-tools.html

Carney, T. (2019). *Alienated America: Why Some Places Thrive While Others Collapse*. Harper Press

Case, A. and Deaton, A. (2015). Rising Morbidity and Mortality among White Non-Hispanic Americans in the 21st Century. *PNAS*, vol. 112, no. 49, pp. 15078–15083

Chen, B.; Vansteenkiste, M.; Beyers, W.; Boone, L. et al (2015). Basic Psychological Need Satisfaction, Need Frustration, and Need Strength Across Four Cultures. *Motivation and Emotion*, vol. 39, no. 2, pp. 216–236

Church, A.; Katigbak, M.; Locke, K.; Zhang, H. et al (2013). Need Satisfaction and Well-Being: Testing Self-Determination Theory in Eight Cultures. *Journal of Cross-Cultural Psychology*, vol. 44, no. 4, pp. 507–534

Cramer, K. (2016). *The Politics of Resentment: Rural Consciousness in Wisconsin and the Rise of Scott Walker*. University of Chicago Press.

Deci, E. and Ryan, R. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, vol. 11, no. 4, pp. 227–268

Deci, E.; Ryan, R.; Gagné, M.; Leone, D.; Usonov, J. and Kornazheva, B. (2001). Need Satisfaction, Motivation, and Well-Being in the Work Organization of a Former Eastern Bloc Country: A Cross-Cultural Study of Self-Determination. *Personality and Social Psychology Bulletin*, vol. 27, no. 9, pp. 930–942

Devos, T. and Banaji, R. (2005). American = White? *Journal of Personality and Social Psychology*, vol. 88, no. 3, pp. 447–466

Dorn, D. (2019). *David Dorn's Data Page*. University of Zurich. https://www.ddorn.net/data.htm

Fabian, M. (2019). The Coalescence of Being: A Model of the Self-Actualization Process. Online First at *Journal of Happiness Studies.*

Farley, J. (2019). Five Decisive States: Examining How and Why Donald Trump Won the 2016 Election. *The Sociological Quarterly*, vol. 60, no. 3, pp. 337–353

Feenstra, R.; Ma, H. and Xu, Yuan (2019). US Exports and Employment. *Journal of International Economics*, vol. 120, no. 1, pp. 46–58

Gagné, M. (2003). The Role of Autonomy Support and Autonomy Orientation in Prosocial Behavior Engagement. *Motivation and Emotion*, vol. 27, no. 3, 199–223

Gervais, B. and Morris, I. (2018). *Reactionary Republicanism: How the Tea Party Paved the Way for Trump's Victory*. Oxford University Press.

Graham, C. (2017). *Happiness for All? Unequal Hopes and Lives in Pursuit of the American Dream.* Princeton, NJ: Princeton University Press.

Graham, C. and Pinto, S. (2019). The Geography of Desperation in America: Labor-Force Participation, Mobility Trends, Place, and Well-Being. *Paper for the Boston Federal Reserve Bank Annual Conference.*

Greenberg, J.; Solomon, S. and Pyszcynski, T. (1997). Terror Management Theory of Self-Esteem and Cultural Worldviews: Empirical Assessments and Conceptual Refinements. In M. Zanna (ed.), *Advances in Experimental Social Psychology*, pp. 61–139. Academic Press

Grimmer, J. and Marble, W. (2019). Who Put Trump in the White House? Explaining the Contribution of Voting Blocks to Trump's Victory. *Under Review.*

Grossman, M. and Thaler, D. (2018). Mass–Elite Divides in Aversion to Social Change and Support for Donald Trump. *American Politics Research*, vol. 46, no. 5, pp. 753–784

Hall Jamieson, K. (2018). *Cyber-War: How Russian Hackers and Trolls Helped Elect a President—What We Don't, Can't, and Do Know.* Oxford University Press.

Haslam, A.; Haslam, C. and Cruwys, T. (2019). Loneliness is a Social Cancer, Every Bit as Alarming as Cancer Itself. *The Conversation*, retrieved 25/11/2019 from: http://theconversation.com/loneliness-is-a-social-cancer-every-bit-as-alarming-as-cancer-itself-126741

Herrin, J.; Witters, D.; Roy, B.; Riley, C.; Liu, D. and Krumholz, H. (2018). Population Well-Being and Electoral Shifts. *PLoS One,* vol. 13, no. 3, pp. 1–6

Hicks, J. and King, L. (2007). Meaning in Life and Seeing the Big Picture: Positive Affect and Global Focus. *Cognition and Emotions,* vol. 21, no. 7, pp. 1577–1584

Hochschild, A. (2016). *Strangers in their Own Land: Anger and Mourning on the American Right.* The New Press.

Hooghe, M. and Dassonneville, R. (2018). Explaining the Trump Vote: The Effect of Racist Resentment and Anti-Immigrant Sentiments. *Political Science and Politics,* vol. 51, no. 3, pp. 528–534

Holbrook, C.; Hahn-Holbrook, J. and Sousa, P. (2011). Unconscious Vigilance: Worldview Defense Without Adaptations for Terror, Coalition, or Uncertainty Management. *Journal of Personality and Social Psychology,* vol. 101, no. 3, pp. 451–466

Ilardi, B.; Leone, D.; Kasser, T. and Ryan, R. (1993). Employee and Supervisor Ratings of Motivation: Main Effects and Discrepancies Associated with Job Satisfaction and Adjustment in a Factory Setting. *Journal of Applied Social Psychology,* vol. 23, no. 21, pp. 1789–1805.

Jang, H.; Reeve, J.; Ryan, R. and Kim, A. (2009). Can Self-Determination Theory Explain What Underlies the Productive, Satisfying Learning Experiences of Collectivistically Oriented Korean Students? *Journal of Educational Psychology,* vol. 101, no. 3, pp. 644–661

Kirkpatrick, L. and Navarrete, C. (2010). Reports of My Death Anxiety Have Been Greatly Exaggerated: A Critique of Terror-Management Theory from an Evolutionary Perspective. *Psychological Inquiry,* vol. 17, no. 4, pp. 288–298

La Guardia, J.; Ryan, R.; Couchman, C. and Deci, E. (2000). Within-Person Variation in Security of Attachment: A Self-Determination Theory Perspective on Attachment, Need Fulfilment and Well-Being. *Journal of Personality and Social Psychology,* vol. 79, no. 3, pp. 367–384

Leip, D. (2016). *Dave Leip U.S. Presidential General County Election Results*. Retrieved from https://doi.org/10.7910/DVN/SUCQ52, Havard Dataverse, V5.

Liberini, F.; Redoano, M. and Proto, E. (2017). Happy Voters. *Journal of Public Economics,* vol. 146, no. 1, pp. 41–57

Liberini, F.; Oswald, A.; Proto, E. and Redoano, M. (2019). Was Brexit Triggered by the Old and Unhappy? Or by Financial Feelings? *Journal of Economic Behavior and Organization,* vol. 161, no. 1, pp. 287–302

Luttig, M.; Federico, C. and Lavine, H. (2017). Supporters and Opponents of Donald Trump Respond Differently to Racial Cues: An Experimental Analysis. Online first at *Research and Politics.*

Lynch, M.; La Guardia, J. and Ryan, R. (2009). On Being Yourself in Different Cultures: Ideal and Actual Self-Concept, Autonomy Support, and Well-Being in China, Russia, and the United States. *Journal of Positive Psychology,* vol. 4, no. 4, pp. 290–304

McClelland, T. (2013). *Nothin' But Blue Skies: The Heyday, Hard Times, and Hopes of America's Industrial Heartland.* Bloomsbury Press.

McGregor, I.; Zanna, M.; Holmes, J. and Spencer, S. (2001). Compensatory Conviction in the Face of Personal Uncertainty: Going to Extremes and Being Oneself. *Journal of Personality and Social Psychology*, vol. 80, no. 3, pp. 472–488

Morgan, S. and Lee, J. (2018). Trump Voters and the White Working Class. *Sociological Science*, vol. 5, no. 4, pp. 234–245

Moretti, E. (2012). *The New Geography of Jobs.* Houghton Mifflin Harcourt.

Mutz, D. (2018). Status Threat, Not Economic Hardship, Explains the 2016 Presidential Vote. *PNAS*, vol. 115, no. 19, pp. E4330–E4339

Navarette, C. (2005). Death Concerns and Other Adaptive Challenges; The Effects of Coalition-Relevant Challenges on Worldview Defense in the US and Costa Rica. *Group Processes and Intergroup Relations*, vol. 8, no. 4, pp. 411–427

NCHS (2019). *Urban–Rural Classification Scheme for Counties*. US National Centre for Health Statistics. Retrieved on 19/11/2019 from: https://www.cdc.gov/nchs/data_access/urban_rural.htm#Data_Files_and_Documentation

Obshonka, M.; Stuetzer, M.; Rentfrow, J.; Lee, N.; Potter, J. and Gosling, S. (forthcoming). Fear, Populism, and the Geopolitical Landscape: The "Sleeper Effect" of Neurotic Personality Traits on Regional Voting Behavior in the 2016 Brexit and Trump Votes. *Social Psychological and Personality Science.*

OECD (2013). *Guidelines for Measuring Subjective Well-Being.* Organisation for Economic Cooperation and Development.

Pew Research Centre (2019). *In US, Decline of Christianity Continues at Rapid Pace.* Pew Research Centre: Religion and Public Life

Pinker, S. *Better Angels of Our Nature: Why Violence Has Declined.* Penguin.

Piston, S. (2010). How Explicit Racial Prejudice Hurt Obama in the 2008 Election. *Political Behavior*, vol. 32, no. 4, pp. 431–451

Putnam, R. (2000). *Bowling Alone: The Collapse of American Community.* Touchstone Books by Simon and Schuster

Putnam, R. (2015). *Our Kids: The American Dream in Crisis.* Simon and Schuster

Pinto, S.; Bencsik, P.; Chuluun, T. and Graham. C. (forthcoming). Presidential Elections, Divided Politics, and Happiness in the US. *Economica.*

Rosenwald, B. (2019). *Talk Radio's America: How an Industry Took Over a Political Party That Took Over the United States.* Harvard University Press.

Reis, H.; Sheldon, K.; Gable, S.; Roscoe, J. and Ryan, R. (2000). Daily Well-Being: The Role of Autonomy, Competence and Relatedness. *Personality and Social Psychology Bulletin*, vol. 26, no. 4, pp. 419–435

Ryan, R. and Deci, E. (2017). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness.* The Guilford Press

Ryan, R.; Huta, V. and Deci, E. (2008). Living Well: A Self-Determination Theory Perspective on Eudaimonia. *Journal of Happiness Studies*, vol. 9, no. 1, pp. 139–170

Schaffner, B.; MacWilliams, M. and Nteta, T. (2017). Hostile Sexism, Racism Denial, and the Historic Education Gap in Support for Trump. In A. cavari, R. Powell, and K. Mayer (eds.), *The 2016 Presidential Election: The Causes and Consequences of a Political Earthquake*, pp. 99 – 116. Lexington Books.

Schaffner, B.; MacWilliams, M. and Nteta, T. (2018). Understanding White Polarization in the 2016 Vote for President: The Sobering Role of Racism and Sexism. *Political Science Quarterly*, vol. 133, no. 1, pp. 9–34

Sheldon, K.; Ryan, R. and Reis, H. (1996). What Makes for a Good Day? Competence and Autonomy in the Day and in the Person. *Personality and Social Psychology Bulletin*, vol. 22, no. 12, pp. 1270–1279.

Sheldon, K.; Elliot, A.; Ryan, R.; Chirkov, V. et al (2004). Self-Concordance and Subjective Well-Being in Four Cultures. *Journal of Cross-Cultural Psychology*, vol. 35, no. 2, pp. 209–223

Sheldon, L.; Abad, N.; Ferguson, Y; Gunz, A. et al (2009). Persistant Pursuit of Need Satisfying Goals Leads to Increased Happiness: A 6-Month Experimental Longitudinal Study. *Motivation and Emotions*, vol. 34, no. 1, pp. 39–48

Sides, J.; Tesler, M. and Vavreck, L. (2018). *Identity Crisis: The 2016 Presidential Campaign and the Battle for the Meaning of America*. Princeton University Press.

Sood, G. (2016). Geographic Information on Designated Media Markets. Retrieved on 17/12/2019 from https://doi.org/10.7910/DVN/IVXEHT. Harvard Dataverse, V7.

Steger, M.; Shin, J.; Shim, Y. and Fitch-Martin, A. (2013). Is Meaning a Flagship Indicator of Well-Being? In A. Waterman (ed.), *The Best Within Us: Positive Psychological Perspectives on Eudaimonia*, pp. 159–182. American Psychological Association.

Stephens-Davidowitz (2014). The Cost of Racial Animus on a Black Candidate: Evidence Using Google Searches. *Journal of Public Economics*, vol. 118, no. 1, pp. 26–40

Stone, A. and Mackie, C. (eds). *Subjective Well-Being: Measuring Well-Being, Suffering, and Other Dimensions of Experience.* National Research Council Report of the National Academies Press.

Teaford, J. (1993). *Cities of the Heartland: The Rise and Fall of the Industrial Midwest.* Indiana University Press

Tessler, M. (2016). Trump Voters Think African Americans are Much Less Deserving than "Average Americans". *Huffpost*, retrieved on 27/09/2019 from: https://www.huffpost.com/entry/trump-voters-think-africa_b_13732500?

USDA (2019). *Commuting Zones and Labor Market Areas*. United States Department of Agriculture Economic Research Service. Retrieved on 19/11/2019 from: https://www.ers.usda.gov/data-products/commuting-zones-and-labor-market-areas/

Valentino, N.; Wayne, C. and Oceno, M. (2019). Mobilizing Sexism: The Interaction of Emotion and Gender Attitudes in the 2016 US Presidential Election. *Public Opinion Quarterly*, vol. 82, no. 4, pp. 213–235

Ward, G. (2019). Happiness and Voting Behavior. In J. Helliwell, R. Layard, and J. Sachs (eds.), *World Happiness Report 2019*, pp. 47 – 66. New York, NY: United Nations.

Ward, G. (Forthcoming). Happiness and Voting: Evidence from Four Decades of Elections in Europe. *American Journal of Political Science.*

Ward, G.; De Neve, J.; Ungar, L. and Eichstaedt, J. (forthcoming). (Un)Happiness and Voting in US Presidential Elections. *Journal of Social and Personality Psychology.*

Waterman, A. (ed.) (2013). *The Best Within Us: Positive Psychological Perspectives on Eudaimonia.* American Psychological Association.

Weinstein, N.; Ryan, R. and Deci, E. (2012). Motivation, Meaning, and Wellness: A Self-Determination Theory Perspective on the Creation and Internalization of Personal Meanings and Life Goals. In V. Wong (ed.), *The Human Quest for Meaning: Theories, Research, and Applications,* pp. 81–106. Routledge.

Wong, V. (Ed.) (2010). *The Human Quest for Meaning: Theories, Research, and Applications.* Routledge.

APPENDIX A1: Full Results—Trump Vote Share 2016

VARIABLE/MODEL	IV Trump Vote	IV Trump Vote	OLS Trump Vote	OLS Trump Vote
Trade Exposure	-0.0118	-0.0009		
	(0.0136)	(0.0142)		
Trade_Exposure*Relatedness	0.0005	0.0000		
	(0.0005)	(0.0006)		
Experienced WORRY yesterday	0.2852	0.3764*	0.3075*	0.4173**
	(0.1896)	(0.1908)	(0.1553)	(0.1599)
Worry*Relatedness	-0.0118	-0.0154*	-0.0128*	-0.0171**
	(0.0074)	(0.0075)	(0.0061)	(0.0063)
Racial Animus	0.0005**	-0.0043*	0.0009***	-0.0032*
	(0.0002)	(0.0017)	(0.0001)	(0.0014)
Racial_Animus*Relatedness		0.0002**		0.0002**
		(0.0001)		(0.0001)
I can't imagine living in a better community	0.0017	-0.0068	0.0045	-0.0032
	(0.0081)	(0.0085)	(0.0068)	(0.0073)
Community pride	0.0016	-0.0078	0.0037	-0.0050
	(0.0099)	(0.0103)	(0.0082)	(0.0087)
The city/area where I live is perfect for me	0.0004	-0.0087	0.0039	-0.0050
	(0.0089)	(0.0099)	(0.0078)	(0.0084)
Make time for vacations with family and friends	-0.0098	-0.0190*	-0.0070	-0.0155*
	(0.0068)	(0.0076)	(0.0055)	(0.0063)
My relationship with my partner is stronger than ever	0.0196*	0.0096	0.0200**	0.0107
	(0.0080)	(0.0088)	(0.0071)	(0.0078)
My friends and family give me energy	0.0084	0.0002	0.0102	0.0028
	(0.0094)	(0.0097)	(0.0078)	(0.0082)
Recognition for improvements to the neighborhood	0.0056	-0.0038	0.0078	-0.0007
	(0.0066)	(0.0075)	(0.0052)	(0.0060)
Competence	-0.0008	-0.0010	-0.0015	-0.0016
	(0.0032)	(0.0032)	(0.0027)	(0.0027)
Optimism	-0.0051	-0.0041	-0.0053	-0.0043
	(0.0040)	(0.0040)	(0.0036)	(0.0036)
Life Satisfaction	0.0102*	0.0099*	0.0100*	0.0099*
	(0.0048)	(0.0048)	(0.0042)	(0.0042)
Satisfied with QOL relative to peers	-0.0037	-0.0047	-0.0006	-0.0017
	(0.0099)	(0.0099)	(0.0087)	(0.0087)
Experienced PAIN yesterday	0.0450*	0.0439*	0.0469**	0.0468**
	(0.0215)	(0.0215)	(0.0181)	(0.0180)
Experienced STRESS yesterday	-0.0015	0.0008	0.0076	0.0100
	(0.0194)	(0.0193)	(0.0176)	(0.0176)
Treated for depression in past month	-0.0488*	-0.0496*	-0.0452*	-0.0463*
	(0.0240)	(0.0240)	(0.0207)	(0.0207)
Large metro	-0.1041***	-0.1034***	-0.1303***	-0.1306***
	(0.0124)	(0.0123)	(0.0124)	(0.0124)
Medium metro	-0.0267**	-0.0265**	-0.0435***	-0.0437***
	(0.0085)	(0.0084)	(0.0065)	(0.0065)
Small metro	-0.0439***	-0.0438***	-0.0564***	-0.0566***
	(0.0072)	(0.0071)	(0.0058)	(0.0058)
Micropolitan	-0.0303***	-0.0300***	-0.0351***	-0.0351***
	(0.0061)	(0.0060)	(0.0057)	(0.0057)
Rural, metropolitan-adjacent	-0.0218***	-0.0216***	-0.0234***	-0.0231***
	(0.0048)	(0.0048)	(0.0046)	(0.0046)
Income1	0.2558**	0.2466**	0.2611***	0.2577***
	(0.0822)	(0.0828)	(0.0740)	(0.0740)
Income2	0.2460**	0.2519**	0.2711***	0.2745***
	(0.0938)	(0.0899)	(0.0594)	(0.0594)
Income3	0.1867**	0.1894**	0.1930***	0.1949***
	(0.0585)	(0.0587)	(0.0434)	(0.0434)
Income4	0.1856***	0.1842***	0.2078***	0.2077***
	(0.0455)	(0.0455)	(0.0346)	(0.0345)
Income5	0.1720***	0.1709***	0.1827***	0.1828***
	(0.0408)	(0.0407)	(0.0324)	(0.0323)
Income6	0.1380**	0.1372**	0.1514***	0.1519***
	(0.0427)	(0.0424)	(0.0355)	(0.0355)
Income7	0.0889*	0.0841	0.1003**	0.0977**
	(0.0436)	(0.0433)	(0.0366)	(0.0365)
Income8	0.1090**	0.1067**	0.1202***	0.1189***

	(0.0402)	(0.0401)	(0.0333)	(0.0332)
Income9	0.0505	0.0477	0.0582	0.0571
	(0.0499)	(0.0498)	(0.0416)	(0.0415)
Income missing	0.1793***	0.1784***	0.1899***	0.1893***
	(0.0398)	(0.0396)	(0.0293)	(0.0293)
Unemployed	-0.0209	-0.0235	-0.0117	-0.0141
	(0.0440)	(0.0437)	(0.0429)	(0.0429)
Underemployed	-0.0710*	-0.0736*	-0.0666*	-0.0679*
	(0.0339)	(0.0336)	(0.0288)	(0.0287)
Out of Labor Force	-0.0154	-0.0153	-0.0030	-0.0022
	(0.0300)	(0.0300)	(0.0247)	(0.0246)
County unemployment 2014	-0.0026	-0.0024	-0.0030	-0.0028
	(0.0041)	(0.0041)	(0.0031)	(0.0031)
County unemployment 2015	-0.0109	-0.0111	-0.0123*	-0.0126*
	(0.0062)	(0.0063)	(0.0052)	(0.0052)
County unemployment 2016	0.0038	0.0039	0.0085**	0.0086**
	(0.0045)	(0.0045)	(0.0032)	(0.0032)
County_GDP_2014	-0.0002	-0.0002	-0.0002	-0.0002
	(0.0003)	(0.0003)	(0.0003)	(0.0003)
County_GDP_2015	0.0005*	0.0005*	0.0005*	0.0006*
	(0.0003)	(0.0003)	(0.0002)	(0.0002)
County poverty rate 2014	-0.0019	-0.0019	-0.0016	-0.0017
	(0.0011)	(0.0011)	(0.0011)	(0.0011)
County poverty rate 2015	-0.0024*	-0.0024*	-0.0021	-0.0021
	(0.0011)	(0.0011)	(0.0011)	(0.0011)
County poverty rate 2016	-0.0009	-0.0009	-0.0001	-0.0001
	(0.0012)	(0.0012)	(0.0011)	(0.0011)
Race missing	-0.1643	-0.1662	-0.1951*	-0.1931*
	(0.0889)	(0.0895)	(0.0810)	(0.0809)
Race other	-0.2083***	-0.2121***	-0.2332***	-0.2347***
	(0.0416)	(0.0420)	(0.0315)	(0.0315)
BLACK	-0.3620***	-0.3626***	-0.3861***	-0.3852***
	(0.0240)	(0.0238)	(0.0177)	(0.0177)
HISPANIC	-0.2033***	-0.2052***	-0.2304***	-0.2318***
	(0.0309)	(0.0310)	(0.0160)	(0.0160)
ASIAN	-0.6273***	-0.6320***	-0.7100***	-0.7104***
	(0.1757)	(0.1729)	(0.1209)	(0.1207)
Male	0.0140	0.0133	0.0153	0.0144
	(0.0187)	(0.0186)	(0.0141)	(0.0141)
Age 25–34	0.0264	0.0264	0.0327	0.0327
	(0.0331)	(0.0329)	(0.0269)	(0.0269)
Age 35–44	0.0771*	0.0751*	0.0835**	0.0818**
	(0.0364)	(0.0360)	(0.0279)	(0.0279)
Age 45–54	-0.0063	-0.0076	-0.0009	-0.0020
	(0.0340)	(0.0335)	(0.0280)	(0.0280)
Age 55–64	-0.0210	-0.0223	-0.0180	-0.0198
	(0.0334)	(0.0331)	(0.0276)	(0.0276)
Age 65–100	-0.0270	-0.0261	-0.0322	-0.0310
	(0.0386)	(0.0380)	(0.0295)	(0.0295)
Health problems	0.0010	0.0026	0.0030	0.0041
	(0.0242)	(0.0242)	(0.0193)	(0.0193)
State of economy is very bad	0.1754***	0.1740***	0.1854***	0.1843***
	(0.0262)	(0.0262)	(0.0204)	(0.0204)
State of economy is bad	0.0960***	0.0937***	0.1035***	0.1019***
	(0.0279)	(0.0278)	(0.0200)	(0.0200)
State of economy is good	-0.0156	-0.0138	-0.0056	-0.0038
	(0.0660)	(0.0661)	(0.0526)	(0.0525)
State of economy is very good	0.2552	0.2470	0.2502*	0.2405*
	(0.1584)	(0.1565)	(0.1074)	(0.1073)
Divorced or separated	-0.0460	-0.0455	-0.0487*	-0.0491*
	(0.0282)	(0.0283)	(0.0244)	(0.0244)
Single	-0.0764**	-0.0769**	-0.0842***	-0.0859***
	(0.0263)	(0.0261)	(0.0205)	(0.0205)
Widowed	0.0111	0.0080	0.0068	0.0025
	(0.0345)	(0.0347)	(0.0335)	(0.0335)
Marital status unknown	0.0548	0.0376	0.0594	0.0442
	(0.1044)	(0.1095)	(0.1191)	(0.1191)
High school drop out	0.1052***	0.1050***	0.1147***	0.1153***
	(0.0258)	(0.0258)	(0.0213)	(0.0213)

High school completed	0.0526**	0.0546**	0.0569**	0.0592***
	(0.0200)	(0.0198)	(0.0177)	(0.0177)
Some tertiary (technical college)	0.0212	0.0210	0.0320	0.0316
	(0.0375)	(0.0374)	(0.0344)	(0.0344)
University	-0.1443***	-0.1421***	-0.1411***	-0.1379***
	(0.0379)	(0.0377)	(0.0253)	(0.0253)
Postgrad	-0.2570***	-0.2570***	-0.2666***	-0.2660***
	(0.0602)	(0.0596)	(0.0320)	(0.0320)
Education unknown	-0.2301	-0.2317	-0.2564*	-0.2548*
	(0.1216)	(0.1232)	(0.1276)	(0.1274)
Union member	-0.0086	-0.0082	-0.0118	-0.0109
	(0.0239)	(0.0243)	(0.0186)	(0.0186)
Almost never attend church	-0.0241	-0.0237	-0.0430	-0.0465
	(0.0676)	(0.0676)	(0.0650)	(0.0650)
Attend church occasionally	-0.0095	-0.0019	-0.0232	-0.0203
	(0.0827)	(0.0827)	(0.0816)	(0.0815)
Attend church monthly	0.0106	0.0074	-0.0175	-0.0212
	(0.0882)	(0.0880)	(0.0807)	(0.0807)
Attend church weekly	0.0183	0.0166	0.0203	0.0179
	(0.0564)	(0.0569)	(0.0554)	(0.0554)
Church missing	0.0244	0.0219	0.0220	0.0178
	(0.0443)	(0.0449)	(0.0455)	(0.0455)
Region: Mid-Atlantic	0.1034***	0.1030***	0.1108***	0.1107***
	(0.0221)	(0.0220)	(0.0136)	(0.0136)
Region: East North-Central	0.1103***	0.1097***	0.1228***	0.1224***
	(0.0216)	(0.0215)	(0.0121)	(0.0121)
Region: West North-Central	0.1632***	0.1638***	0.1718***	0.1727***
	(0.0211)	(0.0210)	(0.0121)	(0.0121)
Region: South-Atlantic	0.1767***	0.1763***	0.1937***	0.1933***
	(0.0218)	(0.0217)	(0.0123)	(0.0122)
Region: East South-Central	0.1989***	0.1976***	0.2265***	0.2257***
	(0.0224)	(0.0223)	(0.0129)	(0.0129)
Region: West South-Central	0.2207***	0.2194***	0.2456***	0.2452***
	(0.0225)	(0.0223)	(0.0128)	(0.0128)
Region: Mountains	0.1335***	0.1346***	0.1454***	0.1474***
	(0.0232)	(0.0231)	(0.0130)	(0.0130)
Region: Pacific	0.1157***	0.1151***	0.1130***	0.1133***
	(0.0250)	(0.0250)	(0.0139)	(0.0139)
l_shind_manuf_cbp	-0.0005	0.0006		
	(0.0379)	(0.0378)		
l_sh_popedu_c	-0.0016**	-0.0015**		
	(0.0005)	(0.0005)		
l_sh_empl_f	-0.0028***	-0.0029***		
	(0.0008)	(0.0008)		
l_sh_popfborn	-0.0022*	-0.0022*		
	(0.0010)	(0.0010)		
l_task_outsource	0.0129	0.0133		
	(0.0113)	(0.0112)		
l_sh_routine33	-0.0011	-0.0012		
	(0.0015)	(0.0015)		
Independent	-0.0400	-0.0432	-0.0527	-0.0545
	(0.0385)	(0.0385)	(0.0334)	(0.0334)
Democrat	-0.1541***	-0.1517***	-0.1625***	-0.1602***
	(0.0356)	(0.0352)	(0.0235)	(0.0235)
Leans Democrat	-0.1872***	-0.1875***	-0.1945***	-0.1938***
	(0.0475)	(0.0471)	(0.0386)	(0.0386)
Republican	0.1924***	0.1912***	0.1971***	0.1966***
	(0.0222)	(0.0221)	(0.0195)	(0.0195)
Leans Republican	0.1049***	0.1047***	0.1055***	0.1067***
	(0.0300)	(0.0301)	(0.0292)	(0.0292)
Constant	0.5703***	0.8091***	0.1456	0.3583**
	(0.1287)	(0.1542)	(0.0910)	(0.1178)

***** Significant at the 5% level

** Significant at the 1% level

*** Significant at the 0.1% level

APPENDIX A2: Full Results—Change in Republican Vote Share 2012–2016

VARIABLE/MODEL	IV ΔRep Vote	IV ΔRep Vote	OLS ΔRep Vote	OLS ΔRep Vote
Trade Exposure	-0.0017	0.0015		
	(0.0047)	(0.0049)		
Trade_Exposure*Relatedness	0.0001	-0.0000		
	(0.0002)	(0.0002)		
Experienced WORRY yesterday	0.1211	0.1481*	0.1081	0.1515*
	(0.0758)	(0.0752)	(0.0667)	(0.0687)
Worry*Relatedness	-0.0061*	-0.0072*	-0.0056*	-0.0074**
	(0.0030)	(0.0030)	(0.0026)	(0.0027)
Racial Animus	0.0004***	-0.0011	0.0003***	-0.0013*
	(0.0001)	(0.0007)	(0.0001)	(0.0006)
Racial_Animus*Relatedness		0.0001		0.0001**
		(0.0000)		(0.0000)
I can't imagine living in a better community	0.0035	0.0010	0.0036	0.0005
	(0.0031)	(0.0033)	(0.0029)	(0.0031)
Community pride	-0.0178***	-0.0206***	-0.0190***	-0.0225***
	(0.0037)	(0.0040)	(0.0035)	(0.0037)
The city/area where I live is perfect for me	0.0098**	0.0072	0.0107**	0.0072*
	(0.0034)	(0.0037)	(0.0034)	(0.0036)
Make time for vacations with family and friends	-0.0022	-0.0049	-0.0022	-0.0055*
	(0.0022)	(0.0027)	(0.0024)	(0.0027)
My relationship with my partner is stronger than ever	0.0110**	0.0080*	0.0106***	0.0069*
	(0.0033)	(0.0037)	(0.0030)	(0.0034)
My friends and family give me energy	-0.0033	-0.0057	-0.0042	-0.0072*
	(0.0032)	(0.0034)	(0.0034)	(0.0035)
Recognition for improvements to the neighborhood	0.0029	0.0001	0.0035	0.0002
	(0.0025)	(0.0030)	(0.0022)	(0.0026)
Competence	0.0001	0.0001	0.0006	0.0006
	(0.0011)	(0.0011)	(0.0011)	(0.0011)
Optimism	-0.0038*	-0.0035*	-0.0042**	-0.0038*
	(0.0015)	(0.0015)	(0.0015)	(0.0015)
Life Satisfaction	0.0018	0.0017	0.0020	0.0020
	(0.0018)	(0.0018)	(0.0018)	(0.0018)
Satisfied with QOL relative to peers	0.0004	0.0001	0.0004	-0.0000
	(0.0037)	(0.0037)	(0.0038)	(0.0038)
Experienced PAIN yesterday	0.0042	0.0038	0.0002	0.0001
	(0.0077)	(0.0077)	(0.0078)	(0.0077)
Experienced STRESS yesterday	0.0066	0.0073	0.0062	0.0072
	(0.0083)	(0.0083)	(0.0076)	(0.0076)
Treated for depression in past month	0.0048	0.0046	0.0058	0.0053
	(0.0098)	(0.0098)	(0.0089)	(0.0089)
Large metro	-0.0305***	-0.0303***	-0.0362***	-0.0363***
	(0.0051)	(0.0051)	(0.0053)	(0.0053)
Medium metro	-0.0127***	-0.0126***	-0.0194***	-0.0195***
	(0.0036)	(0.0036)	(0.0028)	(0.0028)
Small metro	-0.0166***	-0.0166***	-0.0209***	-0.0209***
	(0.0030)	(0.0030)	(0.0025)	(0.0025)
Micropolitan	-0.0195***	-0.0194***	-0.0208***	-0.0208***
	(0.0029)	(0.0029)	(0.0025)	(0.0025)
Rural, metropolitan-adjacent	-0.0105***	-0.0104***	-0.0105***	-0.0104***
	(0.0021)	(0.0021)	(0.0020)	(0.0020)
Income1	0.0068	0.0041	0.0097	0.0083
	(0.0301)	(0.0300)	(0.0318)	(0.0318)
Income2	0.0347	0.0364	0.0410	0.0423
	(0.0257)	(0.0261)	(0.0255)	(0.0255)
Income3	0.0103	0.0111	0.0085	0.0092
	(0.0183)	(0.0183)	(0.0186)	(0.0186)
Income4	0.0189	0.0184	0.0238	0.0237
	(0.0162)	(0.0162)	(0.0149)	(0.0148)
Income5	0.0018	0.0015	0.0068	0.0068
	(0.0142)	(0.0141)	(0.0139)	(0.0139)
Income6	0.0224	0.0222	0.0217	0.0219
	(0.0162)	(0.0162)	(0.0153)	(0.0153)
Income7	0.0182	0.0168	0.0225	0.0215
	(0.0172)	(0.0173)	(0.0157)	(0.0157)
Income8	0.0192	0.0185	0.0240	0.0235

	(0.0158)	(0.0158)	(0.0143)	(0.0143)
Income9	-0.0136	-0.0144	-0.0070	-0.0074
	(0.0178)	(0.0179)	(0.0179)	(0.0178)
Income missing	0.0178	0.0175	0.0209	0.0207
	(0.0135)	(0.0135)	(0.0126)	(0.0126)
Unemployed	-0.0211	-0.0218	-0.0284	-0.0294
	(0.0173)	(0.0174)	(0.0184)	(0.0184)
Underemployed	-0.0112	-0.0120	-0.0152	-0.0158
	(0.0119)	(0.0120)	(0.0124)	(0.0123)
Out of Labor Force	-0.0076	-0.0076	-0.0071	-0.0067
	(0.0112)	(0.0112)	(0.0106)	(0.0106)
County unemployment 2014	0.0082***	0.0082***	0.0083***	0.0084***
	(0.0019)	(0.0019)	(0.0014)	(0.0014)
County unemployment 2015	-0.0076*	-0.0077*	-0.0068**	-0.0069**
	(0.0031)	(0.0031)	(0.0022)	(0.0022)
County unemployment 2016	0.0031	0.0031	0.0013	0.0013
	(0.0020)	(0.0020)	(0.0014)	(0.0014)
County_GDP_2014	0.0002	0.0002	0.0002	0.0002
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
County_GDP_2015	-0.0003*	-0.0003*	-0.0003**	-0.0003**
	(0.0001)	(0.0001)	(0.0001)	(0.0001)
County poverty rate 2014	-0.0001	-0.0001	-0.0000	-0.0001
	(0.0004)	(0.0004)	(0.0005)	(0.0005)
County poverty rate 2015	-0.0004	-0.0005	-0.0006	-0.0006
	(0.0005)	(0.0005)	(0.0005)	(0.0005)
County poverty rate 2016	0.0012*	0.0012**	0.0012*	0.0012*
	(0.0005)	(0.0005)	(0.0005)	(0.0005)
Race missing	0.0270	0.0264	0.0210	0.0218
	(0.0361)	(0.0360)	(0.0348)	(0.0348)
Race other	-0.0408*	-0.0420**	-0.0386**	-0.0392**
	(0.0159)	(0.0158)	(0.0135)	(0.0135)
BLACK	-0.0936***	-0.0937***	-0.1034***	-0.1031***
	(0.0097)	(0.0097)	(0.0076)	(0.0076)
HISPANIC	-0.0425***	-0.0430***	-0.0490***	-0.0495***
	(0.0101)	(0.0100)	(0.0069)	(0.0069)
ASIAN	-0.2865***	-0.2879***	-0.3407***	-0.3408***
	(0.0636)	(0.0631)	(0.0519)	(0.0519)
Male	-0.0047	-0.0049	-0.0067	-0.0070
	(0.0063)	(0.0063)	(0.0061)	(0.0061)
Age 25–34	0.0284*	0.0284*	0.0283*	0.0283*
	(0.0131)	(0.0131)	(0.0116)	(0.0116)
Age 35–44	0.0397**	0.0391**	0.0432***	0.0426***
	(0.0131)	(0.0132)	(0.0120)	(0.0120)
Age 45–54	0.0498***	0.0494***	0.0500***	0.0496***
	(0.0143)	(0.0143)	(0.0120)	(0.0120)
Age 55–64	0.0454**	0.0450**	0.0448***	0.0441***
	(0.0148)	(0.0147)	(0.0119)	(0.0119)
Age 65–100	0.0399**	0.0401**	0.0416**	0.0421***
	(0.0151)	(0.0152)	(0.0127)	(0.0127)
Health problems	0.0043	0.0048	0.0035	0.0039
	(0.0086)	(0.0085)	(0.0083)	(0.0083)
State of economy is very bad	0.0120	0.0116	0.0122	0.0118
	(0.0098)	(0.0097)	(0.0088)	(0.0088)
State of economy is bad	0.0050	0.0043	0.0065	0.0059
	(0.0092)	(0.0092)	(0.0086)	(0.0086)
State of economy is good	-0.0097	-0.0091	-0.0073	-0.0066
	(0.0222)	(0.0223)	(0.0226)	(0.0226)
State of economy is very good	0.0808*	0.0784*	0.0774	0.0736
	(0.0355)	(0.0351)	(0.0461)	(0.0461)
Divorced or separated	0.0284*	0.0286*	0.0298**	0.0296**
	(0.0117)	(0.0118)	(0.0105)	(0.0105)
Single	0.0287**	0.0286**	0.0305***	0.0299***
	(0.0107)	(0.0107)	(0.0088)	(0.0088)
Widowed	0.0600***	0.0590***	0.0676***	0.0659***
	(0.0158)	(0.0159)	(0.0144)	(0.0144)
Marital status unknown	-0.0514	-0.0565	-0.0535	-0.0595
	(0.0397)	(0.0409)	(0.0512)	(0.0512)
High school drop out	0.0121	0.0120	0.0133	0.0135
	(0.0098)	(0.0098)	(0.0092)	(0.0092)

High school completed	0.0294***	0.0300***	0.0324***	0.0333***
	(0.0079)	(0.0080)	(0.0076)	(0.0076)
Some tertiary (technical college)	0.0176	0.0175	0.0239	0.0237
	(0.0143)	(0.0142)	(0.0148)	(0.0148)
University	-0.0510***	-0.0503***	-0.0563***	-0.0550***
	(0.0123)	(0.0123)	(0.0109)	(0.0109)
Postgrad	-0.1111***	-0.1111***	-0.1214***	-0.1211***
	(0.0148)	(0.0148)	(0.0137)	(0.0137)
Education unknown	0.1030	0.1026	0.0993	0.0999
	(0.0540)	(0.0536)	(0.0548)	(0.0548)
Union member	0.0581***	0.0582***	0.0512***	0.0516***
	(0.0094)	(0.0093)	(0.0080)	(0.0080)
Almost never attend church	-0.0077	-0.0076	-0.0142	-0.0156
	(0.0301)	(0.0302)	(0.0279)	(0.0279)
Attend church occasionally	-0.0517	-0.0494	-0.0582	-0.0570
	(0.0361)	(0.0362)	(0.0351)	(0.0350)
Attend church monthly	-0.0298	-0.0307	-0.0354	-0.0368
	(0.0363)	(0.0367)	(0.0347)	(0.0347)
Attend church weekly	-0.0409	-0.0414	-0.0449	-0.0458
	(0.0274)	(0.0273)	(0.0238)	(0.0238)
Church missing	-0.0221	-0.0229	-0.0244	-0.0261
	(0.0226)	(0.0226)	(0.0196)	(0.0195)
Region: Mid-Atlantic	0.0377***	0.0376***	0.0361***	0.0361***
	(0.0087)	(0.0087)	(0.0059)	(0.0058)
Region: East North-Central	0.0231***	0.0229***	0.0215***	0.0213***
	(0.0059)	(0.0059)	(0.0052)	(0.0052)
Region: West North-Central	0.0292***	0.0294***	0.0309***	0.0312***
	(0.0057)	(0.0057)	(0.0052)	(0.0052)
Region: South-Atlantic	0.0053	0.0051	0.0054	0.0052
	(0.0057)	(0.0057)	(0.0053)	(0.0053)
Region: East South-Central	0.0080	0.0076	0.0019	0.0015
	(0.0067)	(0.0067)	(0.0056)	(0.0055)
Region: West South-Central	-0.0019	-0.0023	-0.0097	-0.0099
	(0.0061)	(0.0061)	(0.0055)	(0.0055)
Region: Mountains	-0.0258**	-0.0255**	-0.0378***	-0.0371***
	(0.0089)	(0.0089)	(0.0056)	(0.0056)
Region: Pacific	-0.0186*	-0.0188*	-0.0342***	-0.0341***
	(0.0074)	(0.0074)	(0.0060)	(0.0060)
l_shind_manuf_cbp	-0.0438	-0.0435		
	(0.0255)	(0.0252)		
l_sh_popedu_c	-0.0013***	-0.0013***		
	(0.0003)	(0.0003)		
l_sh_empl_f	0.0020***	0.0020***		
	(0.0005)	(0.0005)		
l_sh_popfborn	0.0001	0.0001		
	(0.0003)	(0.0003)		
l_task_outsource	-0.0174**	-0.0172**		
	(0.0055)	(0.0055)		
l_sh_routine33	0.0008	0.0007		
	(0.0007)	(0.0007)		
Independent	-0.0167	-0.0177	-0.0196	-0.0203
	(0.0142)	(0.0141)	(0.0143)	(0.0143)
Democrat	0.0377***	0.0384***	0.0420***	0.0429***
	(0.0112)	(0.0113)	(0.0101)	(0.0101)
Leans Democrat	0.0179	0.0178	0.0181	0.0183
	(0.0165)	(0.0166)	(0.0166)	(0.0166)
Republican	-0.0285**	-0.0288**	-0.0309***	-0.0311***
	(0.0088)	(0.0088)	(0.0084)	(0.0084)
Leans Republican	0.0222	0.0221	0.0188	0.0193
	(0.0140)	(0.0140)	(0.0125)	(0.0125)
Constant	-0.1438*	-0.0731	-0.0382	0.0458
	(0.0568)	(0.0645)	(0.0391)	(0.0506)

***** Significant at the 5% level

** Significant at the 1% level

*** Significant at the 0.1% level

APPENDIX A3: Full Results—Obama Vote Share 2012

VARIABLE/MODEL	IV ΔRep Vote	IV ΔRep Vote	OLS ΔRep Vote	OLS ΔRep Vote
Trade Exposure	-0.0118	-0.0218*		
	(0.0084)	(0.0095)		
Trade_Exposure*Relatedness	0.0012	0.0021*		
	(0.0008)	(0.0009)		
Experienced WORRY yesterday	-0.2479*	-0.2633*	-0.2713**	-0.2867**
	(0.1183)	(0.1179)	(0.1041)	(0.1046)
Worry*Relatedness	0.0252*	0.0268*	0.0268**	0.0283**
	(0.0112)	(0.0112)	(0.0099)	(0.0100)
Racial Animus	-0.0002	0.0036**	-0.0007***	0.0009
	(0.0002)	(0.0013)	(0.0001)	(0.0011)
Racial_Animus*Relatedness		-0.0004**		-0.0002
		(0.0001)		(0.0001)
I can't imagine living in a better community	-0.0223**	-0.0035	-0.0175**	-0.0079
	(0.0074)	(0.0100)	(0.0058)	(0.0088)
My friends and family give me energy	-0.0223**	-0.0040	-0.0185**	-0.0091
	(0.0078)	(0.0101)	(0.0068)	(0.0093)
Recognition for improvements to the neighborhood	-0.0103	0.0081	-0.0079	0.0014
	(0.0062)	(0.0093)	(0.0050)	(0.0081)
Competence	-0.0019	-0.0019	-0.0021	-0.0022*
	(0.0011)	(0.0011)	(0.0011)	(0.0011)
Optimism	-0.0019	-0.0019	-0.0012	-0.0012
	(0.0031)	(0.0031)	(0.0029)	(0.0029)
Life Satisfaction	0.0028	0.0028	0.0022	0.0021
	(0.0037)	(0.0038)	(0.0035)	(0.0035)
Experienced PAIN yesterday	0.0069	0.0050	-0.0011	-0.0023
	(0.0181)	(0.0180)	(0.0155)	(0.0156)
Experienced STRESS yesterday	0.0027	0.0023	0.0047	0.0043
	(0.0170)	(0.0170)	(0.0149)	(0.0149)
Treated for depression in past month	0.0130	0.0145	0.0118	0.0126
	(0.0173)	(0.0173)	(0.0176)	(0.0176)
Large metro	0.0859***	0.0855***	0.1133***	0.1137***
	(0.0123)	(0.0123)	(0.0132)	(0.0132)
Medium metro	0.0143	0.0144	0.0292***	0.0295***
	(0.0097)	(0.0097)	(0.0072)	(0.0072)
Small metro	0.0331***	0.0327***	0.0440***	0.0441***
	(0.0081)	(0.0080)	(0.0065)	(0.0065)
Micropolitan	0.0178**	0.0178**	0.0231***	0.0233***
	(0.0068)	(0.0068)	(0.0064)	(0.0064)
Rural, metropolitan-adjacent	0.0107	0.0105	0.0140**	0.0141**
	(0.0056)	(0.0056)	(0.0052)	(0.0052)
Income1	-0.0815	-0.0815	-0.0833	-0.0850
	(0.0564)	(0.0574)	(0.0571)	(0.0571)
Income2	-0.0887	-0.0834	-0.1011	-0.0995
	(0.0565)	(0.0567)	(0.0518)	(0.0518)
Income3	-0.1002**	-0.0961*	-0.1255***	-0.1250***
	(0.0375)	(0.0378)	(0.0332)	(0.0332)
Income4	-0.0749*	-0.0723*	-0.0883***	-0.0882***
	(0.0297)	(0.0299)	(0.0261)	(0.0261)
Income5	-0.0660*	-0.0618*	-0.0760**	-0.0748**
	(0.0283)	(0.0289)	(0.0259)	(0.0259)
Income6	-0.0643*	-0.0627	-0.0658*	-0.0660*
	(0.0320)	(0.0321)	(0.0268)	(0.0268)
Income7	-0.0407	-0.0396	-0.0520	-0.0521
	(0.0307)	(0.0308)	(0.0268)	(0.0268)
Income8	-0.0505	-0.0483	-0.0598*	-0.0596*
	(0.0279)	(0.0280)	(0.0255)	(0.0255)
Income9	-0.0314	-0.0308	-0.0278	-0.0277
	(0.0430)	(0.0432)	(0.0346)	(0.0346)
Income missing	-0.0908**	-0.0872**	-0.1030***	-0.1018***
	(0.0304)	(0.0308)	(0.0267)	(0.0267)
Unemployed	0.0238	0.0202	0.0348	0.0340
	(0.0301)	(0.0301)	(0.0312)	(0.0312)
Underemployed	0.0405	0.0421	0.0374	0.0376
	(0.0267)	(0.0270)	(0.0246)	(0.0246)
Out of Labor Force	-0.0508*	-0.0536**	-0.0548*	-0.0559**

	(0.0203)	(0.0204)	(0.0214)	(0.0214)
County unemployment 2012	0.0089***	0.0090***	0.0081***	0.0081***
	(0.0015)	(0.0015)	(0.0012)	(0.0012)
County poverty rate 2012	0.0064***	0.0064***	0.0050***	0.0050***
	(0.0006)	(0.0006)	(0.0005)	(0.0005)
Race missing	0.1638*	0.1620*	0.1756*	0.1764*
	(0.0705)	(0.0697)	(0.0690)	(0.0690)
Race other	0.0906	0.0934	0.0966*	0.0979*
	(0.0536)	(0.0532)	(0.0470)	(0.0470)
BLACK	0.2737***	0.2726***	0.2884***	0.2872***
	(0.0205)	(0.0205)	(0.0180)	(0.0180)
HISPANIC	0.1117***	0.1090***	0.1312***	0.1295***
	(0.0272)	(0.0273)	(0.0172)	(0.0172)
ASIAN	0.8119***	0.8146***	0.8625***	0.8647***
	(0.1352)	(0.1368)	(0.1132)	(0.1132)
Male	-0.0010	-0.0006	-0.0020	-0.0019
	(0.0124)	(0.0125)	(0.0120)	(0.0120)
Age 25–34	0.0082	0.0064	0.0085	0.0082
	(0.0268)	(0.0267)	(0.0247)	(0.0247)
Age 35–44	-0.0012	-0.0029	0.0012	0.0007
	(0.0281)	(0.0282)	(0.0257)	(0.0257)
Age 45–54	0.0514	0.0528	0.0550*	0.0563*
	(0.0277)	(0.0278)	(0.0253)	(0.0253)
Age 55–64	0.0390	0.0385	0.0422	0.0430
	(0.0273)	(0.0274)	(0.0254)	(0.0254)
Age 65–100	0.0364	0.0353	0.0422	0.0419
	(0.0282)	(0.0282)	(0.0261)	(0.0261)
Health problems	-0.0201	-0.0224	-0.0202	-0.0209
	(0.0169)	(0.0168)	(0.0165)	(0.0165)
State of economy is very bad	-0.1316***	-0.1321***	-0.1368***	-0.1367***
	(0.0212)	(0.0212)	(0.0184)	(0.0184)
State of economy is bad	-0.0362	-0.0373	-0.0328	-0.0331
	(0.0209)	(0.0208)	(0.0182)	(0.0182)
State of economy is good	-0.0761	-0.0777	-0.0786	-0.0790
	(0.0478)	(0.0483)	(0.0476)	(0.0476)
State of economy is very good	-0.2034*	-0.1932*	-0.2042	-0.1995
	(0.0949)	(0.0947)	(0.1095)	(0.1095)
Divorced or separated	0.0588**	0.0600**	0.0588**	0.0596**
	(0.0202)	(0.0204)	(0.0197)	(0.0197)
Single	0.0962***	0.0978***	0.1049***	0.1064***
	(0.0209)	(0.0209)	(0.0189)	(0.0189)
Widowed	0.0750*	0.0736*	0.0838**	0.0838**
	(0.0311)	(0.0310)	(0.0293)	(0.0293)
Marital status unknown	0.1651	0.1595	0.1708	0.1676
	(0.1275)	(0.1272)	(0.1269)	(0.1269)
High school drop out	-0.0367	-0.0351	-0.0389*	-0.0379
	(0.0209)	(0.0209)	(0.0198)	(0.0198)
High school completed	0.0080	0.0058	0.0069	0.0060
	(0.0175)	(0.0175)	(0.0164)	(0.0164)
Some tertiary (technical college)	0.0569	0.0535	0.0641*	0.0635*
	(0.0297)	(0.0297)	(0.0264)	(0.0264)
University	0.0299	0.0268	0.0297	0.0273
	(0.0261)	(0.0261)	(0.0229)	(0.0230)
Postgrad	0.1606***	0.1588***	0.1600***	0.1590***
	(0.0317)	(0.0319)	(0.0281)	(0.0281)
Education unknown	0.0428	0.0453	0.0512	0.0516
	(0.0884)	(0.0886)	(0.0884)	(0.0884)
Union member	0.0727***	0.0717***	0.0667***	0.0666***
	(0.0167)	(0.0167)	(0.0168)	(0.0168)
Almost never attend church	-0.0381	-0.0543	-0.0386	-0.0449
	(0.0628)	(0.0621)	(0.0561)	(0.0562)
Attend church occasionally	0.0124	0.0095	0.0212	0.0181
	(0.0747)	(0.0746)	(0.0694)	(0.0694)
Attend church monthly	0.0035	-0.0042	-0.0124	-0.0160
	(0.0884)	(0.0883)	(0.0727)	(0.0727)
Attend church weekly	-0.1427*	-0.1476**	-0.1472**	-0.1510**
	(0.0558)	(0.0553)	(0.0495)	(0.0495)
Church missing	-0.0358	-0.0446	-0.0411	-0.0460
	(0.0468)	(0.0458)	(0.0389)	(0.0390)

Region: Mid-Atlantic	-0.1127*** (0.0203)	-0.1125*** (0.0201)	-0.1236*** (0.0148)	-0.1237*** (0.0148)
Region: East North-Central	-0.1114*** (0.0202)	-0.1109*** (0.0200)	-0.1270*** (0.0131)	-0.1269*** (0.0131)
Region: West North-Central	-0.1521*** (0.0200)	-0.1521*** (0.0199)	-0.1630*** (0.0133)	-0.1630*** (0.0133)
Region: South-Atlantic	-0.1937*** (0.0201)	-0.1926*** (0.0200)	-0.2094*** (0.0132)	-0.2089*** (0.0132)
Region: East South-Central	-0.2037*** (0.0212)	-0.2021*** (0.0210)	-0.2369*** (0.0140)	-0.2368*** (0.0140)
Region: West South-Central	-0.2519*** (0.0205)	-0.2497*** (0.0203)	-0.2889*** (0.0138)	-0.2884*** (0.0139)
Region: Mountains	-0.2045*** (0.0218)	-0.2040*** (0.0216)	-0.2316*** (0.0144)	-0.2319*** (0.0144)
Region: Pacific	-0.1627*** (0.0248)	-0.1612*** (0.0247)	-0.1771*** (0.0152)	-0.1767*** (0.0152)
l_shind_manuf_cbp	-0.1096* (0.0485)	-0.1098* (0.0486)	-0.0897*** (0.0201)	-0.0890*** (0.0201)
l_sh_popedu_c	0.0004 (0.0006)	0.0003 (0.0006)		
l_sh_empl_f	0.0043*** (0.0009)	0.0045*** (0.0009)		
l_sh_popfborn	0.0021 (0.0011)	0.0021* (0.0011)		
l_task_outsource	-0.0159 (0.0145)	-0.0174 (0.0146)		
l_sh_routine33	0.0010 (0.0018)	0.0011 (0.0018)		
Independent	0.0299 (0.0403)	0.0260 (0.0409)	0.0306 (0.0349)	0.0287 (0.0349)
Democrat	0.1507*** (0.0317)	0.1532*** (0.0318)	0.1531*** (0.0269)	0.1539*** (0.0269)
Leans Democrat	0.1616*** (0.0460)	0.1618*** (0.0457)	0.1868*** (0.0407)	0.1871*** (0.0407)
Republican	-0.1091*** (0.0250)	-0.1110*** (0.0251)	-0.1066*** (0.0243)	-0.1072*** (0.0243)
Leans Republican	-0.0318 (0.0336)	-0.0305 (0.0335)	-0.0400 (0.0360)	-0.0401 (0.0360)
Constant	0.3465** (0.1175)	0.1533 (0.1418)	0.7168*** (0.0733)	0.6260*** (0.0958)

***** Significant at the 5% level

** Significant at the 1% level

*** Significant at the 0.1% level

APPENDIX A4: Full Results—Change in Democrat Vote Share 2008–2012

VARIABLE/MODEL	IV ΔRep Vote	IV ΔRep Vote	OLS ΔRep Vote	OLS ΔRep Vote
Trade Exposure	-0.0010	-0.0014		
	(0.0023)	(0.0029)		
Trade_Exposure*Relatedness	-0.0000	0.0000		
	(0.0002)	(0.0003)		
Experienced WORRY yesterday	-0.0009	-0.0016	-0.0053	-0.0050
	(0.0291)	(0.0289)	(0.0271)	(0.0272)
Worry*Relatedness	0.0001	0.0002	0.0004	0.0003
	(0.0028)	(0.0027)	(0.0026)	(0.0026)
Racial Animus	-0.0000	0.0001	-0.0001***	-0.0002
	(0.0001)	(0.0005)	(0.0000)	(0.0003)
Racial_Animus*Relatedness		-0.0000		0.0000
		(0.0000)		(0.0000)
I can't imagine living in a better community	-0.0034*	-0.0026	-0.0034*	-0.0036
	(0.0016)	(0.0027)	(0.0015)	(0.0023)
My friends and family give me energy	-0.0014	-0.0007	-0.0015	-0.0017
	(0.0018)	(0.0027)	(0.0018)	(0.0024)
Recognition for improvements to the neighborhood	0.0008	0.0016	0.0004	0.0002
	(0.0013)	(0.0026)	(0.0013)	(0.0021)
Competence	0.0000	0.0000	-0.0000	-0.0000
	(0.0003)	(0.0003)	(0.0003)	(0.0003)
Optimism	-0.0001	-0.0001	-0.0001	-0.0001
	(0.0009)	(0.0009)	(0.0008)	(0.0008)
Life Satisfaction	0.0008	0.0008	0.0009	0.0009
	(0.0010)	(0.0010)	(0.0009)	(0.0009)
Experienced PAIN yesterday	-0.0069	-0.0070	-0.0078	-0.0078
	(0.0046)	(0.0045)	(0.0040)	(0.0040)
Experienced STRESS yesterday	-0.0014	-0.0014	-0.0003	-0.0003
	(0.0043)	(0.0043)	(0.0039)	(0.0039)
Treated for depression in past month	-0.0086	-0.0086	-0.0091*	-0.0092*
	(0.0053)	(0.0053)	(0.0046)	(0.0046)
Large metro	0.0088**	0.0087**	0.0141***	0.0141***
	(0.0030)	(0.0030)	(0.0034)	(0.0034)
Medium metro	0.0077**	0.0077**	0.0108***	0.0108***
	(0.0030)	(0.0030)	(0.0019)	(0.0019)
Small metro	0.0091***	0.0091***	0.0108***	0.0108***
	(0.0019)	(0.0019)	(0.0017)	(0.0017)
Micropolitan	0.0043*	0.0043*	0.0048**	0.0048**
	(0.0020)	(0.0020)	(0.0017)	(0.0017)
Rural, metropolitan-adjacent	0.0044**	0.0044**	0.0047***	0.0047***
	(0.0014)	(0.0014)	(0.0014)	(0.0014)
Income1	-0.0280	-0.0280	-0.0274	-0.0273
	(0.0181)	(0.0182)	(0.0148)	(0.0148)
Income2	-0.0085	-0.0082	-0.0099	-0.0100
	(0.0144)	(0.0144)	(0.0135)	(0.0135)
Income3	-0.0182	-0.0180	-0.0232**	-0.0232**
	(0.0103)	(0.0102)	(0.0086)	(0.0086)
Income4	-0.0123	-0.0122	-0.0169*	-0.0169*
	(0.0083)	(0.0083)	(0.0068)	(0.0068)
Income5	-0.0113	-0.0112	-0.0158*	-0.0158*
	(0.0076)	(0.0076)	(0.0067)	(0.0067)
Income6	-0.0091	-0.0090	-0.0102	-0.0102
	(0.0074)	(0.0074)	(0.0070)	(0.0070)
Income7	-0.0058	-0.0058	-0.0092	-0.0092
	(0.0081)	(0.0081)	(0.0070)	(0.0070)
Income8	0.0005	0.0006	-0.0017	-0.0017
	(0.0073)	(0.0073)	(0.0066)	(0.0066)
Income9	0.0057	0.0057	0.0061	0.0061
	(0.0094)	(0.0094)	(0.0090)	(0.0090)
Income missing	-0.0160*	-0.0158*	-0.0208**	-0.0208**
	(0.0077)	(0.0077)	(0.0069)	(0.0069)
Unemployed	-0.0059	-0.0060	-0.0045	-0.0045
	(0.0087)	(0.0088)	(0.0081)	(0.0081)
Underemployed	-0.0021	-0.0021	-0.0021	-0.0021
	(0.0071)	(0.0071)	(0.0064)	(0.0064)
Out of Labor Force	-0.0115*	-0.0116*	-0.0138*	-0.0138*

	(0.0053)	(0.0053)	(0.0056)	(0.0056)
County unemployment 2012	0.0008*	0.0008*	0.0005	0.0005
	(0.0004)	(0.0004)	(0.0003)	(0.0003)
County poverty rate 2012	0.0008***	0.0008***	0.0005***	0.0005***
	(0.0002)	(0.0002)	(0.0001)	(0.0001)
Race missing	0.0119	0.0119	0.0171	0.0171
	(0.0171)	(0.0171)	(0.0179)	(0.0179)
Race other	0.0501**	0.0503**	0.0499***	0.0499***
	(0.0157)	(0.0157)	(0.0122)	(0.0122)
BLACK	0.0580***	0.0580***	0.0638***	0.0638***
	(0.0052)	(0.0052)	(0.0047)	(0.0047)
HISPANIC	0.0238***	0.0237***	0.0326***	0.0327***
	(0.0054)	(0.0054)	(0.0045)	(0.0045)
ASIAN	-0.0419	-0.0418	-0.0231	-0.0231
	(0.0332)	(0.0331)	(0.0294)	(0.0294)
Male	-0.0029	-0.0029	-0.0039	-0.0039
	(0.0032)	(0.0032)	(0.0031)	(0.0031)
Age 25–34	0.0010	0.0009	0.0002	0.0002
	(0.0063)	(0.0063)	(0.0064)	(0.0064)
Age 35–44	-0.0020	-0.0021	-0.0020	-0.0020
	(0.0072)	(0.0072)	(0.0067)	(0.0067)
Age 45–54	-0.0034	-0.0033	-0.0042	-0.0042
	(0.0069)	(0.0069)	(0.0066)	(0.0066)
Age 55–64	-0.0031	-0.0032	-0.0044	-0.0044
	(0.0068)	(0.0068)	(0.0066)	(0.0066)
Age 65–100	0.0027	0.0027	0.0035	0.0035
	(0.0069)	(0.0069)	(0.0068)	(0.0068)
Health problems	0.0071	0.0070	0.0075	0.0075
	(0.0045)	(0.0045)	(0.0043)	(0.0043)
State of economy is very bad	-0.0073	-0.0074	-0.0082	-0.0082
	(0.0050)	(0.0050)	(0.0048)	(0.0048)
State of economy is bad	-0.0020	-0.0020	-0.0007	-0.0007
	(0.0047)	(0.0047)	(0.0047)	(0.0047)
State of economy is good	-0.0160	-0.0160	-0.0141	-0.0140
	(0.0118)	(0.0117)	(0.0124)	(0.0124)
State of economy is very good	0.0207	0.0211	0.0198	0.0197
	(0.0257)	(0.0258)	(0.0285)	(0.0285)
Divorced or separated	0.0028	0.0028	0.0016	0.0016
	(0.0064)	(0.0065)	(0.0051)	(0.0051)
Single	-0.0012	-0.0011	0.0006	0.0006
	(0.0053)	(0.0052)	(0.0049)	(0.0049)
Widowed	0.0133	0.0132	0.0143	0.0143
	(0.0082)	(0.0082)	(0.0076)	(0.0076)
Marital status unknown	0.0163	0.0160	0.0199	0.0200
	(0.0299)	(0.0300)	(0.0330)	(0.0330)
High school drop out	-0.0168**	-0.0167**	-0.0163**	-0.0164**
	(0.0055)	(0.0056)	(0.0051)	(0.0052)
High school completed	-0.0086	-0.0087	-0.0088*	-0.0088*
	(0.0046)	(0.0046)	(0.0043)	(0.0043)
Some tertiary (technical college)	-0.0038	-0.0039	-0.0035	-0.0035
	(0.0069)	(0.0069)	(0.0069)	(0.0069)
University	-0.0191**	-0.0193**	-0.0195**	-0.0194**
	(0.0060)	(0.0060)	(0.0060)	(0.0060)
Postgrad	-0.0063	-0.0063	-0.0067	-0.0066
	(0.0068)	(0.0068)	(0.0073)	(0.0073)
Education unknown	-0.0164	-0.0163	-0.0159	-0.0159
	(0.0213)	(0.0213)	(0.0230)	(0.0230)
Union member	-0.0031	-0.0031	-0.0043	-0.0043
	(0.0051)	(0.0051)	(0.0044)	(0.0044)
Almost never attend church	0.0085	0.0078	0.0029	0.0030
	(0.0175)	(0.0174)	(0.0146)	(0.0146)
Attend church occasionally	0.0298	0.0297	0.0331	0.0331
	(0.0185)	(0.0185)	(0.0180)	(0.0180)
Attend church monthly	0.0172	0.0169	0.0101	0.0102
	(0.0176)	(0.0175)	(0.0189)	(0.0189)
Attend church weekly	-0.0026	-0.0028	-0.0070	-0.0069
	(0.0143)	(0.0142)	(0.0129)	(0.0129)
Church missing	0.0043	0.0039	0.0016	0.0017
	(0.0113)	(0.0111)	(0.0101)	(0.0102)

Region: Mid-Atlantic	-0.0148**	-0.0148**	-0.0160***	-0.0160***
	(0.0055)	(0.0055)	(0.0038)	(0.0038)
Region: East North-Central	-0.0298***	-0.0298***	-0.0325***	-0.0325***
	(0.0055)	(0.0055)	(0.0034)	(0.0034)
Region: West North-Central	-0.0222***	-0.0222***	-0.0241***	-0.0241***
	(0.0048)	(0.0048)	(0.0035)	(0.0035)
Region: South-Atlantic	-0.0160***	-0.0159***	-0.0180***	-0.0180***
	(0.0048)	(0.0048)	(0.0034)	(0.0034)
Region: East South-Central	-0.0091	-0.0090	-0.0157***	-0.0157***
	(0.0059)	(0.0059)	(0.0036)	(0.0036)
Region: West South-Central	-0.0105	-0.0105	-0.0166***	-0.0166***
	(0.0056)	(0.0056)	(0.0036)	(0.0036)
Region: Mountains	-0.0211***	-0.0211***	-0.0244***	-0.0244***
	(0.0057)	(0.0057)	(0.0037)	(0.0037)
Region: Pacific	-0.0163**	-0.0163**	-0.0146***	-0.0146***
	(0.0054)	(0.0054)	(0.0040)	(0.0040)
l_shind_manuf_cbp	0.0512**	0.0512**	0.0307***	0.0307***
	(0.0156)	(0.0156)	(0.0052)	(0.0052)
l_sh_popedu_c	0.0002	0.0002		
	(0.0002)	(0.0002)		
l_sh_empl_f	0.0008*	0.0008*		
	(0.0003)	(0.0003)		
l_sh_popfborn	0.0006**	0.0006**		
	(0.0002)	(0.0002)		
l_task_outsource	0.0015	0.0014		
	(0.0038)	(0.0038)		
l_sh_routine33	-0.0005	-0.0005		
	(0.0005)	(0.0005)		
Independent	-0.0047	-0.0049	-0.0055	-0.0055
	(0.0113)	(0.0113)	(0.0091)	(0.0091)
Democrat	0.0044	0.0045	0.0050	0.0050
	(0.0070)	(0.0071)	(0.0070)	(0.0070)
Leans Democrat	-0.0161	-0.0161	-0.0119	-0.0119
	(0.0102)	(0.0102)	(0.0106)	(0.0106)
Republican	-0.0009	-0.0010	0.0016	0.0016
	(0.0066)	(0.0067)	(0.0063)	(0.0063)
Leans Republican	0.0042	0.0042	0.0025	0.0025
	(0.0108)	(0.0107)	(0.0094)	(0.0094)
Constant	-0.0587	-0.0667	0.0082	0.0101
	(0.0306)	(0.0405)	(0.0190)	(0.0249)

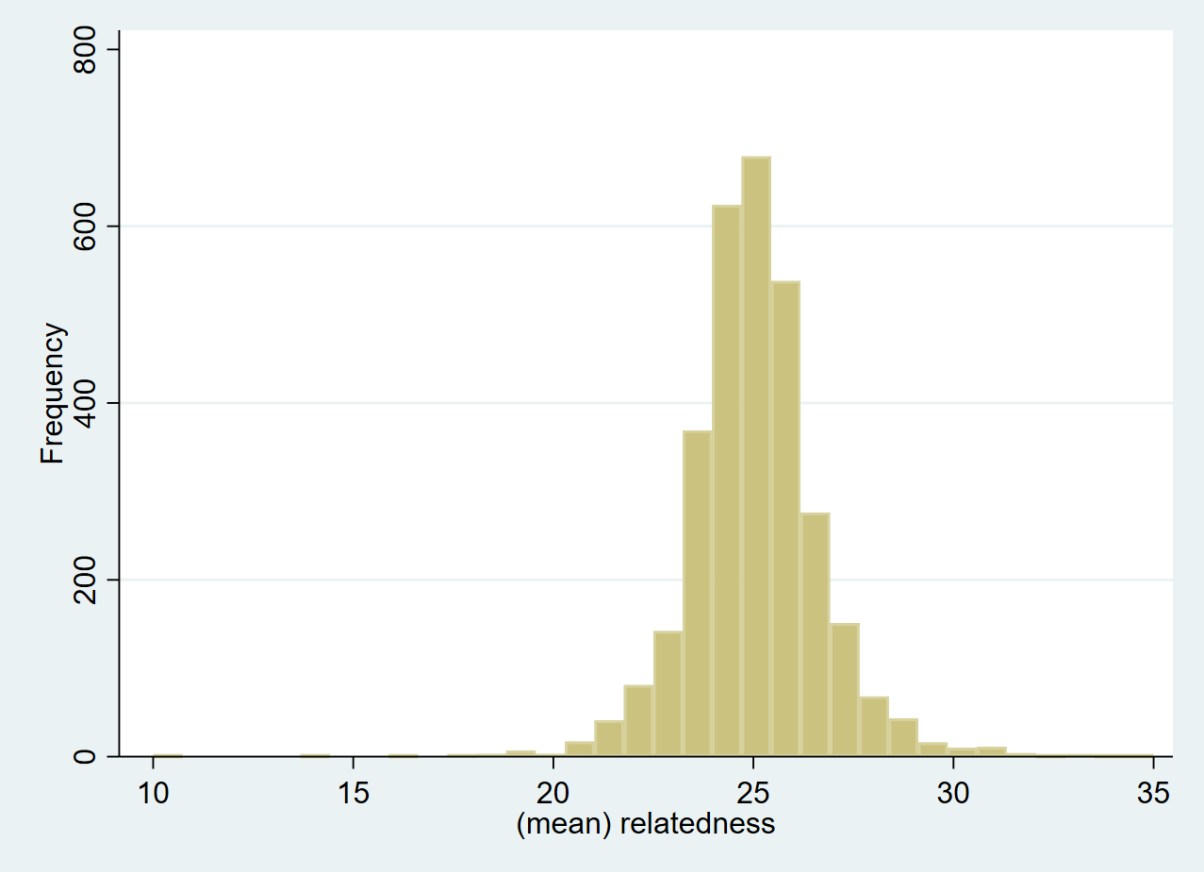
***** Significant at the 5% level

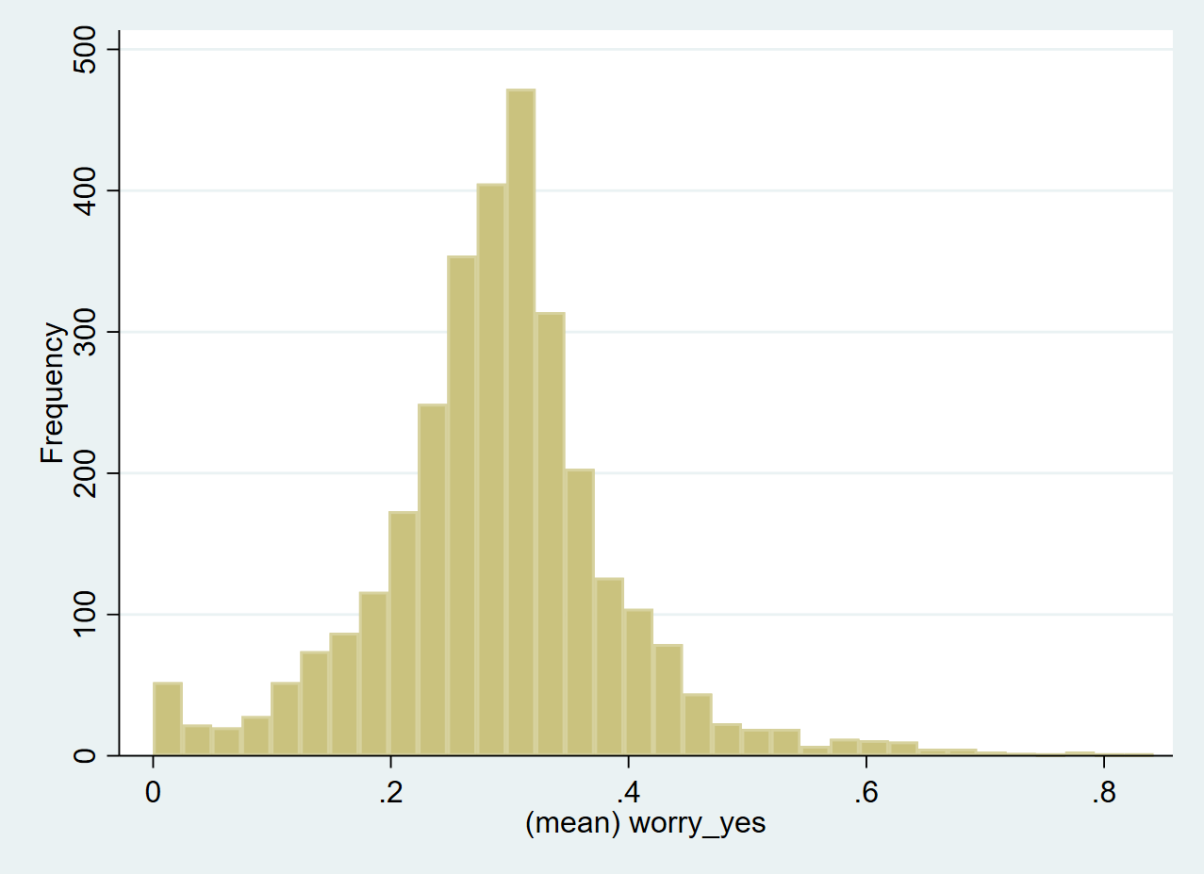
** Significant at the 1% level

*** Significant at the 0.1% level

Appendix Section 5: Summary Statistics for Key Variables

Variable	Obs	Mean	S.D.	Min	Max
Trade Shock	3092	3.7	3.61	~0	49
Worry	3092	0.29	0.11	0	0.87
Relatedness	3092	25.02	1.66	10	35
Racial Animus	3092	61.59	17.71	25.68	154.51
Can't Imagine living in a better community	3092	3.54	0.39	1	5
Community Pride	3092	3.85	0.37	1	5
The city/area where I live is perfect for me	3092	3.84	0.37	1	5
My relationship with my partner is stronger than ever	3092	4.18	0.29	2	5
Make time for vacations with family and friends	3092	3.26	0.39	1	5
Recognition for improvements to neighborhood	3092	2.22	0.40	1	5
My friends and family give me energy	3092	4.14	0.27	2	5
Competence	3091	15.13	1.00	4	19.48
Optimism	3092	7.54	0.63	5	10
Life Satisfaction	3092	6.94	0.55	2.39	10

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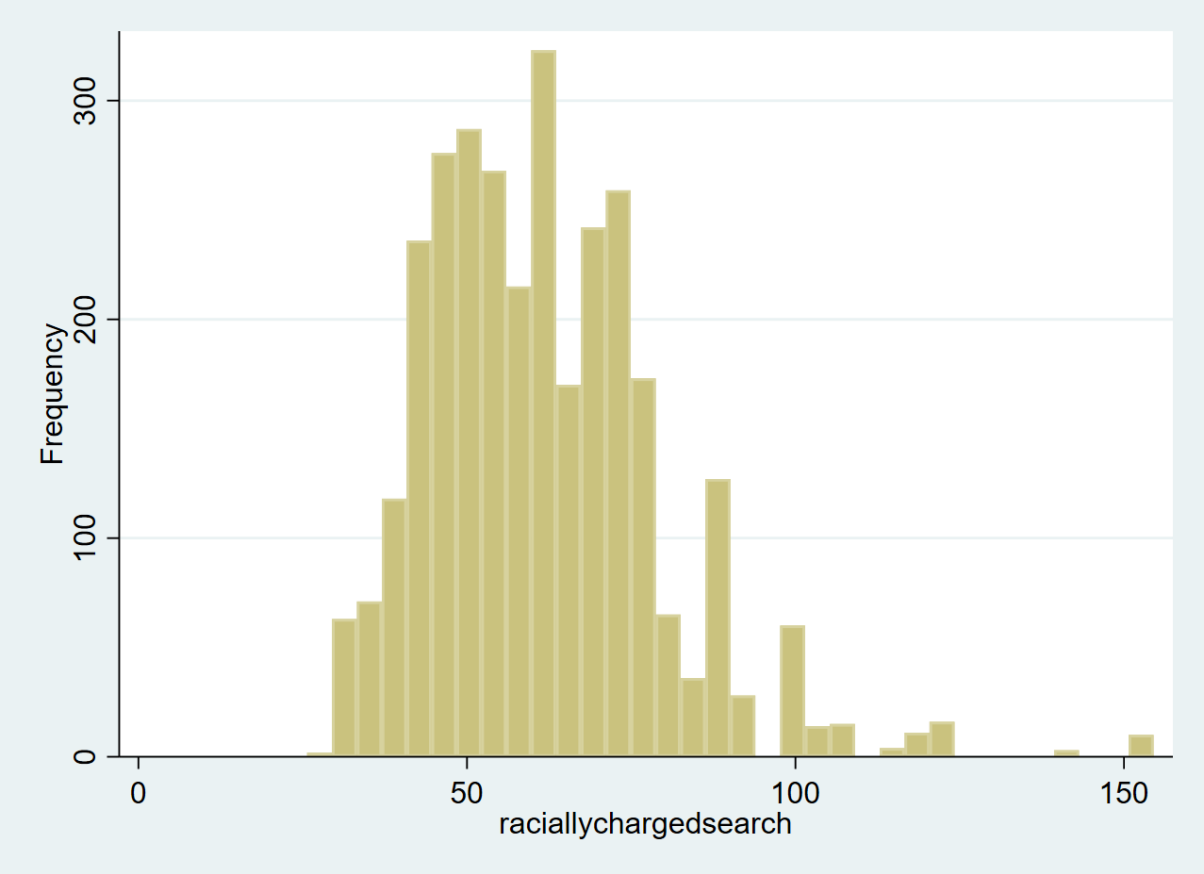
200
300
400
500
0
.2
.4
.6
.8
(mean) worry_yes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