NBER WORKING PAPER SERIES

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Working Paper 24268
http://www.nber.org/papers/w24268

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
January 2018

I thank Jesse Graham for generous data sharing. William Murdock and Patricia Sun provided truly outstanding research assistance. Financial support from Harvard LEAP is gratefully acknowledged. The views expressed herein are those of the author and do not necessarily reflect the views of the National Bureau of Economic Research.

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NBER Working Paper No. 24268
January 2018
JEL No. D03,D72

ABSTRACT

This paper studies the supply of and demand for moral values in recent U.S. presidential elections. The hypothesis is that people exhibit heterogeneity in their adherence to "individualizing" relative to "communal" moral values and that politicians' vote shares reflect the interaction of their relative moral appeal and the values of the electorate. To investigate the supply of morality, a text analysis of campaign documents classifies all candidates for the presidency since 2008 along the moral individualism vs. communalism dimension. On the demand-side, the analysis exploits two separate survey datasets to link the structure of voters' moral values to election outcomes, both across individuals within counties and across counties within states or commuting zones. The results document that heterogeneity in moral values is systematically related to voting behavior in ways that are predicted by supply-side text analyses. For example, Donald Trump's rhetoric exhibits the largest communal moral appeal among all recent presidential nominees. This pattern is matched on the demand-side, where communal values are strongly correlated with votes for Trump in the primaries, the difference in votes between Trump and past Republicans in the presidential election, and increases in voter turnout in 2016. Similarly tight connections between supply- and demand-side analyses hold for almost all contenders for the presidency in recent years, hence suggesting that morality is a key determinant of election outcomes more generally. Still, a key difference between 2016 and earlier elections appears to be the salience of moral threat in political language.

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A few moments later, the President said, "I need loyalty, I expect loyalty."
James B. Comey, Testimony on conversations with Donald J. Trump
June 7, 2017

This cultural tradition comes with . . . an intense sense of loyalty, a fierce dedication to family and country but . . . we do not like outsiders.
J.D. Vance, *Hillbilly Elegy*, 2016

1 Introduction

This paper studies the role of moral values – people's beliefs about "right" and "wrong" – in recent U.S. presidential elections. An influential recent literature in moral psychology partitions morality into two structurally different types of moral values: *individualizing* and *communal* values. Individualizing values reflect an equal concern with the welfare of all individuals moral principles, such as justice, rights, fairness, or caring for others. Communal values, on the other hand, correspond more closely to group-based relationship-specific values such as in-group loyalty or respecting societal hierarchies (e.g., Haidt, 2007, 2012). These latter types of values constitute a form of particularist morality, according to which the application of moral principles depends on context, including notions of "us" and "them". While psychologists do not necessarily agree about the precise structure of moral values, there appears to be a large consensus around the broad distinction between communal and individualizing values.

Individual-level heterogeneity in moral values is partly systematic: in numerous ethnographies and books, sociologists have pointed out that – especially outside of urban centers – the white working class in the U.S. is deeply concerned with morality, in particular of the communal type (e.g., Etzioni, 1994; Lamont, 2009; Sherman, 2009; Hochschild, 2016). According to these accounts, it is difficult to overstate the importance of moral values in structuring social, economic, and political life. Psychologists have documented that communal values are relatively more prevalent among people who self-identify as Republicans (Graham et al., 2009; Haidt, 2012).[1] At the same time, no formal empirical research has investigated the link between moral values and voting decisions, how politicians cater to the moral needs of their constituents, and how these two forces interact in generating election outcomes.

This paper addresses these issues by jointly studying the demand- and supply-side of moral values in voting contexts, with a particular focus on the 2016 election. Here, "supply-side" means the idea that politicians might – either consciously or subconsciously – supply a particular *type* of morality in their programs and speeches. On the

[1] Also see MacWilliams (2016) for an analysis of "authoritarianism" in political science.

other hand, "demand-side" refers to the notion that people may vote for candidates that appeal to their own moral values. The premise underlying this study is hence explicitly *not* that some voters are more or less moral than others but rather that heterogeneity in the structure of morality might contribute to our understanding of recent elections.

The analysis of both the demand- and the supply-side is based on the core ideas behind "Moral Foundations Theory" (MFT). MFT is a leading conceptual framework in moral psychology that emphasizes the difference between individualizing and communal moral values (Graham et al., 2013, 2017). The key analytical tools of this framework are the "Moral Foundations Questionnaire" (MFQ) and the "Moral Foundations Dictionary" (MFD). The MFQ is a questionnaire that consists of 30 qualitative Likert scale questions. In this questionnaire, concepts that are related to individualizing values include fairness, rights, justice, and caring for others. Communal values are measured by assessing the subjective relevance of concepts such as in-group loyalty, betrayal, and obedience to hierarchy. The MFD consists of a set of key words that can be associated with a particular type of morality, often based on the terminology in the MFQ.

While psychologists supply sound conceptual reasons for the distinction between individualizing and communal values, I do not take it at face value. Rather, through a tailored nationally representative survey, I validate both the theoretical distinction between individualizing and communal values and its implication for easily interpretable economic attitudes and behaviors. To this end, I document that a one-dimensional measure of the *relative* importance of communal vs. individualizing values endogenously emerges in a factor analysis of the moral dimensions in the MFQ. In addition, this measure of the relative importance of communal values is strongly correlated with those types of behaviors that one would expect, i.e., the extent to which people (i) favor taxation and redistribution at the community as opposed to the federal level and (ii) donate money or volunteer time for their local community as opposed to nationwide charities.

This validated measure of the *relative* importance of communal moral values is the key analytical tool in this paper. The analysis begins by considering the special case of Donald Trump in 2016. Trump provides a particularly attractive first step for the present investigation both because he turns out to be a large outlier in his moral appeal relative to past presidential nominees and because several features of the demand-side data – explained in greater detail below – allow more sophisticated analyses for 2016 than for prior elections.

The supply-side analysis compares the moral content of Trump's political speeches and texts with that of all other contenders for the American presidency since 2008, i.e., the set of candidates for which the American Presidency Project gathered a comprehensive dataset on 17,180 campaign documents. Based on the terminology proposed in the

MFD, I conduct a transparent exercise of counting relative word frequencies to generate a document-level summary statistic of the *relative* frequency of moral communalism. The resulting dataset can be used to assess the moral appeal of different candidates.

The results document that Trump's moral language is more communal than that of any other presidential nominee in recent history.[2] In addition, Hillary Clinton's moral language was very individualizing (also compared to Barack Obama), so that the difference in relative communal moral appeal between Trump and Clinton is much larger than that between previous pairs of candidates. In addition, Trump is also more communal than other Republicans, both in the complete set of candidates and among the 2016 contenders. Thus, the supply-side analysis predicts that voting for Trump should be positively correlated with the relative importance of communal moral values.

The demand-side analysis utilizes two complementary survey datasets on moral values that allow an exploration of the relationship between morality and voting both at the individual and at the county level. I implemented a tailored pre-registered nationally representative survey ($N \approx 4,000$) to elicit moral values and past voting decisions. As predicted by the text analysis, the relative importance of communal moral values is strongly correlated with voting for Trump. This is true for (i) voting in the presidential election, (ii) the *difference* between the propensity to vote for Trump in 2016 and Romney or McCain in 2012 and 2008, respectively, and (iii) voting for Trump in the Republican primaries. For example, a one standard deviation increase in moral communalism is associated with an increase in the probability of voting for Trump in the primaries of about nine percentage points. While these correlations exploit variation along the *intensive* margin of voting, I also document that voters with strong communal values were differentially more likely to turn out in the presidential election, relative to their turnout in prior elections. All of these individual-level correlations exploit variation within states or counties and hold conditional on a rich set of observables. Notably, in these regressions, moral values are *much* more predictive of Trump's success relative to other Republicans than variables that are typically highly correlated with voting patterns, such as religiosity, population density, household income, or attitudes about the size of government, pro-environmentalism, crime policies, and gun control.

While the individual-level analysis has the benefit that it relies on a representative sample of respondents, it is ill-suited to investigate the joint relationship between the supply and demand of morality beyond the 2016 election, i.e., in the full sample of candidates that competed in the primaries since 2008. First, issues of limited and selective recall about past voting behavior are more likely to play a serious role for eliciting voting behavior in primaries earlier than 2016. Second, because most survey respon-

[2]Throughout the paper, I often use "communal values" to say "relative importance of communal values". The paper is never concerned with levels of morality, only with its structure.

dents do not vote in primary elections, gathering a sufficiently powered individual-level dataset on moral values and voting for all candidates in the primaries is highly impractical. To circumvent these problems, the analysis exploits variation in politicians' vote shares across counties in combination with a county-level index of moral values. Constructing such an index for about 3,000 counties requires a large number of underlying individual-level observations on moral values. Since 2008, more than 185,000 Americans completed the MFQ on the website www.yourmorals.org. While this self-selected set of respondents is not representative of a county's population, the large number of respondents allows me to compute a meaningful county-level index of the average relative importance of communal moral values that is constructed just as in the individual-level analysis. In matching this county-level index to official vote records, the analysis is also complementary to the individual-level analysis in that it does not rely on self-reports of voting decisions.

Across counties, the average relative importance of communal values is strongly correlated with vote shares for Trump (i) in the primaries, (ii) in the presidential election, and (iii) in terms of the difference relative to past Republican candidates. Moreover, along the extensive margin of voting, counties with more communal values experience higher turnout compared to previous elections, both in the presidential election and in the Republican primaries. These results all hold conditional on state fixed effects and also when I exploit geographically fine-grained variation across counties within commuting zones. In addition, the correlations all hold up controlling for a large set of county-level observables. Finally, I document that the relationship between moral values and voting for Trump is not driven by reverse causality, i.e., by Trump differentially changing moral values across counties: when county-level moral values are computed exclusively based on respondents from a period when Trump was not even politically active, e.g., 2008–2011, county-level communal values are still strongly correlated with Trump's vote shares.

The rich analysis of Trump serves as proof-of-concept that analyses of moral values provide insights into election outcomes. However, if the methodology of connecting supply- and demand-side analyses of morality is meaningful more generally, then it should also be able to perform well in explaining other past election results. Thus, in the next step, the paper studies the relationship between moral values and voting patterns for all candidates in the primaries of Democrats and Republicans since 2008. These analyses directly link the *quantitative* results of supply- and demand-side regressions. The logic is that if a candidate in a given primary election is relatively more (less) communal in their moral language than their direct competitors, then that candidate's county-level vote share should be more positively (negatively) correlated with

the county-level moral communalism index.

The results document that supply-side and demand-side patterns are tightly connected: vote shares are consistently correlated with county-level moral values in the ways predicted by text analyses. These results hold even though the analysis only exploits variation within Democrats or Republicans in the same election year. To pick a few illustrative examples, in 2008, John McCain is significantly less communal in his moral rhetoric than his Republican contenders and his county-level vote share is negatively correlated with the relative prevalence of moral communalism. In 2012, Mitt Romney is about average in his communal moral appeal and his vote share is uncorrelated with moral values. In 2016, Hillary Clinton's language is less communal than Bernie Sanders' and her vote share in the primaries is negatively associated with moral communalism. Similar correspondences hold for almost all other contenders in the primaries, the one notable exception being Barack Obama in 2008: while Obama's moral appeal is significantly more communal than, e.g., Clinton's, his county-level vote share is strongly negatively correlated with moral communalism. I discuss this special case in greater detail below. Still, ignoring this extreme outlier, a candidate's relative moral communalism as identified in the text analysis is strongly predictive of the relationship between that candidate's vote share and moral values across counties. This suggests that the methodology of connecting supply- and demand-side analyses of morality that I develop in this paper successfully extends to contexts other than the 2016 election.

These results also suggest that the 2016 election was not a special case – moral values seem to play an important role in elections in general. However, if that is the case, then why did Trump succeed in garnering sufficient support to win the presidency, but other communal Republicans did not? After all, while Trump is substantially more communal in his moral rhetoric than any other presidential nominee in recent years, a few contenders in the primaries (such as Fred Thompson, Rudy Giuliani, or Ted Cruz) are at least as communal in their moral rhetoric as Trump. While I do not pretend to be able to conclusively answer this question, the final part of the empirical analysis makes progress by studying the emphasis on moral threat across candidates and elections.

Voting decisions are arguably multidimensional problems, so that – if anything – moral values only compete with other considerations in determining a decision. The extent to which people actually base their voting choices on moral values might crucially depend on people's perceptions of whether the moral order is under threat and hence requires action. Indeed, political scientists (Feldman and Stenner, 1997; Stenner, 2005) have argued that communal values gain prominence in affecting people's behavior as they feel that moral threat becomes more severe. It might hence be possible for politicians not just to cater to a particular kind of morality, but also to signal

the current importance of moral concerns in general. In continuing the text analysis, I study this issue by making use of the fact that the moral key words in the MFD are partitioned into moral "vices" and "virtues", i.e., language that signals moral threat and moral well-doing, respectively. I find that – orthogonal to which types of moral values politicians emphasize – Trump encodes moral language more through the presence of moral threat than any other candidate in my dataset. Thus, it may be that other politicians were as communal as Trump in their moral appeal, yet did not manage to make morality a top priority for voters.

This paper ties into a recent stream of papers on the 2016 presidential election and the rise of populism. Bursztyn et al. (2017) study the effect of the election outcome on social norms, while Allcott and Gentzkow (2017) and Autor et al. (2016) analyze the role of fake news and trade shocks in the election. Guiso et al. (2017) and Cantoni et al. (2017) study populism in Europe. More generally, the paper relates to the small but growing literature on behavioral political economy (Glaeser, 2005; Benabou and Tirole, 2006; DellaVigna and Kaplan, 2007; Alesina and Giuliano, 2011; Ortoleva and Snowberg, 2015; Bisin et al., 2015; Lizzeri and Yariv, 2015; Fisman et al., 2015; Perez-Truglia, 2016; Passarelli and Tabellini, 2017; Chen and Yang, 2017). This line of work has emphasized concepts such as correlation neglect, time inconsistency, emotions, or distributional preferences but has not focused on the structure of moral values.

Morality has attracted recent interest in the behavioral literature (e.g., Falk and Szech, 2013; Bursztyn et al., 2016), yet this line of work is neither concerned with the distinction between individualizing and communal values that is at the core of this paper, nor with understanding voting behavior. Relative to the psychological literature, this paper makes progress by rigorously studying the supply of moral values as well as by linking moral values to actual voting decisions for particular candidates.

The remainder of the paper proceeds as follows. Section 2 discusses the conceptual background of the paper, including a validation of the concept of communal vs. individualizing moral values. Section 3 studies the supply of morality. Sections 4 and 5 investigate the demand-side of the 2016 election. Section 6 generalizes the analysis to other candidates. Section 7 discusses the role of moral threat and Section 8 concludes.

2 Background: Moral Values and Their Measurement

2.1 Moral Foundations Theory

Moral values correspond to people's abstract judgments about what is right and wrong. For years, the scientific study of moral values was largely restricted to "individualizing" or "universal" moral values, i.e., values that apply irrespective of the context or per-

son under consideration. For instance, the concept of justice is widely considered to be an individualizing value because it does not apply predominantly to, say, in-group members.

However, following work in cultural anthropology (Shweder, 1991; Shweder et al., 1997), moral psychologists started to focus on values that correspond more closely to relationship-specific obligations, such as in-group loyalty and people's acceptance of societal hierarchies. Such "communal" or "binding" values (Haidt, 2012) are a form of *particularist* morality, according to which moral judgment requires the specification of context, such as the person under consideration. For example, in-group loyalty by definition imposes moral restrictions on behavior that differ depending on whether that behavior is directed towards in- or out-group members. Cultural and evolutionary psychologists argue that these communal values relate to human's long tradition of living in small groups, and recent empirical research indeed suggests that communal moral values emerged to support small-scale cooperative behavior in social dilemmas (Enke, 2017).

To measure the importance of a broad spectrum of moral values, Haidt and Joseph (2004) and Graham et al. (2013) developed Moral Foundations Theory (MFT). This framework consists of two interrelated analytical tools that I make use of below: the Moral Foundations Questionnaire (MFQ) and the Moral Foundations Dictionary (MFD). MFT rests on the idea that morality can be described by five moral "foundations":

1. Care / harm: Measures the extent to which people care for the weak and attempt to prevent harm from others.

2. Fairness / reciprocity: Measures the importance of ideas relating to equality, justice, rights, and autonomy.

3. In-group / loyalty: Measures people's emphasis on being loyal to the "in-group" (family, country) and the moral relevance of betrayal.

4. Authority / respect: Measures the importance of respect for authority, tradition, and societal order.

5. Purity / sanctity: Measures the importance of ideas related to purity and traditional religious attitudes.

Crucially, the harm / care and fairness / reciprocity dimensions are individualizing moral values. For example, the fairness principle requires that people be fair, not that they be fair to their neighbors. On the other hand, in-group / loyalty and authority / respect refer to relationship-specific obligations, i.e., moral principles that apply differentially across people. In what follows, I will ignore the fifth foundation because it is

not directly related to the distinction between individualizing and communal values. I report robustness checks that include the purity foundation.

The measurement and conceptualization of moral values is intrinsically difficult and subject to much disagreement among moral psychologists in its details and terminology. In particular, there is an active debate about MFT and the assumption that morality can be partitioned into five foundations. For example, the founders of MFT recently argued that the set of moral foundations should be further expanded. At the same time, the basic distinction between communal and individualizing values is widely accepted in moral psychology (see, e.g., Napier and Luguri, 2013; Hofmann et al., 2014; Smith et al., 2014, for recent applications). In addition, formal exploratory factor analyses of the MFQ survey items have provided evidence for a strong two-factor solution along the communalism vs. individualism dimension (Graham et al., 2011; Chakroff, 2015). I further validate this key conceptual distinction below.

Moral Foundations Questionnaire. Table 1 presents a stylized version of the 24 survey items underlying the four MFQ foundations that I will focus on, and Appendix H describes the entire questionnaire. Each moral foundation is measured through six survey items. Of these, three ask people to assess the moral relevance of certain phenomena and behaviors, while the other three elicit people's agreement with moral value statements. All questions are to be answered on Likert scales from 0 to 5. For each foundation, the total score then consists of the sum of the scores across questions.

Moral Foundations Dictionary. The "Moral Foundations Dictionary" (MFD) is a set of moral key words that was created and released by Graham and Haidt.[3] The MFD is in principle based on the terminology in the MFQ and is designed to include words that the psychologists intuited would belong into a particular moral category. For each of the four dimensions harm / care, fairness / reciprocity, in-group / loyalty, and authority / respect, the MFD contains a list of words (often word stems). The MFD additionally contains a set of words that measure the strength of moral content in general terms, e.g., "moral*". In total, the MFD contains 215 words for the four moral foundations and 29 words for general morality. Appendix I describes the entire MFD.

2.2 Construction and Validation of Moral Communalism Index

While MFT arguably provides a consistent rationale for the conceptual difference between individualizing and communal moral values, I do not take these arguments at face value. This section describes the steps I undertook to construct a one-dimensional

[3] See http://www.moralfoundations.org/othermaterials.

Table 1: Overview of MFQ survey items

	Moral relevance of:	Agreement with:
Harm / Care	Emotional suffering Care for weak and vulnerable Cruelty	Compassion with suffering crucial virtue Hurt defenseless animal is worst thing Never right to kill human being
Fairness / Reciprocity	Treat people differently Act unfairly Deny rights	Laws should treat everyone fairly Justice most important requirement for society Morally wrong that rich children inherit a lot
In-group / Loyalty	Show love for country Betray group Lack of loyalty	Proud of country's history Be loyal to family even if done sth. wrong Be team player, rather than express oneself
Authority / Respect	Lack of respect for authority Conform to societal traditions Cause disorder	Children need to learn respect for authority Men and women have different roles in society Soldiers must obey even if disagree with order

Notes. Each moral foundations is measured using six survey items. The items in the second column ask respondents to state to which extent the respective category is of moral relevance for them (on a scale of 0–5), while the items in the third column ask them to indicate their agreement with a given statement (also 0–5). For each dimension, the final score is computed by summing responses across items, see Appendix H for details.

index of heterogeneity in moral values and to validate this analytical tool. This validation step makes use of a tailored, nationally representative pre-registered survey of $N = 4,011$ Americans through *Research Now* that forms the basis of the individual-level demand-side analysis. I discuss the data collection procedure and sample characteristics in detail in Section 4.

The survey contained all 30 MFQ survey items. To construct a summary statistic, I first normalize the data across respondents by dividing each of the relevant four MFQ foundations by the sum of all four foundations. This serves the purpose of measuring the importance of each moral foundation *relative* to the other ones, since the research hypothesis is not about heterogeneity in the overall extent to which people value moral principles, but instead the relative nature of those values. In a second step, I aggregate the four foundations through a principal component analysis. In this analysis, the first component explains 55% of the variance in the original MFQ foundations, and it is the only component that has an eigenvalue that is larger than one (2.19).

The resulting weights endogenously have the attractive features that they intuitively correspond to the difference between individualizing and communal values. Specifically, harm / care and fairness / reciprocity enter with negative weights (-0.4970 and -0.5276, respectively), while in-group / loyalty and authority / respect enter with pos-

itive weights (0.5273 and 0.4433, respectively).[4] Thus, all MFQ foundations receive roughly equals weights in the construction of the summary index of the relative importance of communal moral values. I standardize this index into a z-score. Table 11 in Appendix C reports correlations between this index and basic individual characteristics. The relative importance of communal values is essentially uncorrelated with educational attainment ($\rho = -0.01$, $p = 0.54$) and *positively* correlated with income ($\rho = 0.07$, $p < 0.01$). In addition, men, older people, the religious, and people in more rural environments tend to be more communal.

In a second step, I seek to validate this summary statistic of morality by correlating it with measures that are more closely related to how economists might think about trading off the welfare of all individuals in society and exhibiting loyalty to the local community. The survey contained a set of four pre-registered questions.[5] Appendix K describes these survey items in detail: (i) the extent to which people prefer that taxes for schools are collected locally and redistributed only among local schools (as opposed to taxes being collected and redistributed at the federal level); (ii) the difference between self-reported monetary donations to local entities (church, firefighters, local libraries, etc.) and to more "global" entities (non-profit organizations such as Feeding America or United Way Worlwide) over the past 12 months; (iii) the difference between hours volunteered for local entities and global entities over the last month; and (iv) the decision in a quasi-experimental money allocation task in which respondents were asked to split hypothetical $99 between the local firefighters and United Way Worldwide.

Table 10 in Appendix C documents that all of these variables are strongly and significantly correlated with the relative importance of communal moral values, also conditional on a rich set of covariates. Indeed, the structure of moral values appears much more predictive of these attitudes and behaviors than income or education. This validation step is arguably useful in that it reveals that my one-dimensional measure of the relative importance of communal values not only emerges endogenously in factor analyses but also correlates with economically meaningful behaviors.

[4] The pre-registration specified that I would construct the moral communalism index by applying the weights that come out of the same factor analysis as described in the text, yet applied to the MFQ dataset from www.yourmorals.org that forms the basis for the county-level analysis below. However, for simplicity, I ultimately settled for computing the weights directly on the more representative *Research Now* sample. In practical terms, this makes virtually no difference because the two factor analyses yield almost the same weights (the pre-specified weights, in order of appearance in the text, are −0.58, −0.35, 0.52, and 0.52, respectively). The moral communalism index that I use exhibits a correlation of $\rho = 0.93$ with the one I specified in the pre-registration. The results from the survey, summarized in Table 3 in Section 4, are robust to using the pre-registered index of moral values, see Table 12 in Appendix C.

[5] See http://egap.org/registration/2849.

3 Supply-Side: Moral Values in Trump's Political Rhetoric

3.1 Data

The data on political rhetoric during presidential campaigns stem from the American Presidency Project (APP) at UC Santa Barbara (Peters and Woolley, 2017). The data contain campaign speeches, official statements, press releases, debates, and speeches at fundraisers by Republican and Democratic contenders for the Presidency since 2008.[6] APP draws primarily on materials posted on candidate websites. In total, the data consist of 47 candidates and 17,180 campaign documents with an average length of 755 words. Each document is associated with a type (e.g., campaign speech), its date, and the corresponding election year.

To prepare the data for text analysis, the following steps are applied: (i) scrape the documents from the APP using a Python script; (ii) manually check the debate documents for any errors or inconsistencies;[7] (iii) delete words between parentheses and brackets as they typically provide information that was not delivered in the speech; (iv) strip all punctuation; and (v) delete all stop words – i.e., frequent words that convey very little content.

The most transparent analysis of the nature of a politician's moral appeal consists of a word counting exercise that is based on the target words in the MFD. To this end, I construct a continuous document-level summary statistic of the relative frequency of communal moral terminology that closely corresponds to the measure of the relative importance of communal values developed above. The construction of this summary statistic needs to account for two types of imbalances within the MFD. First, the dictionary contains more words for some MFQ foundations than for others. Second, morality can be referred to both in virtue ("A is loyal") and in vice ("B betrays") terminology, and the fraction of words within a given foundation that refers to virtues / vices is not constant across values. This issue is potentially problematic because politicians might speak about morality in different ways.

To account for these imbalances, I compute the index of the relative frequency of communal moral terminology using the following procedure:

1. Count the frequency of each moral target word.

2. Compute the average frequency across target words for each moral foundation,

[6] Coverage is very thin for 2004 and empty for 2000.

[7] Documents on official statements and press releases occasionally contain text that is not directly relevant, such as: "On October 10, 2016, Mr. Trump issues the following statement." Given the large number of press releases, the rarity of such add-ons and their short length, I manually cleaned only the official statements. Table 7 in Appendix B presents robustness checks in which I exclude all press releases.

separately for vice terms and virtue terms.

3. Compute the average frequency across vices and virtues for each foundation.

The summary statistic is hence given by

$$\text{Rel. freq. communal terminology} = \frac{\#\text{ In-group } + \#\text{ Authority } - \#\text{ Care } - \#\text{ Fairness}}{\text{Total number of non-stop words}}$$

where

$$\#\ i = \text{Ave}\Big[\text{Ave}_i^{\text{vices}}(\text{word freq.}),\ \text{Ave}_i^{\text{virtues}}(\text{word freq.})\Big]$$

This procedure implicitly accounts for (i) different numbers of vices and virtues across moral values in the MFD, (ii) different numbers of target words across moral values in the MFD, and (iii) different text lengths.[8] Appendix J provides a list of the most common moral target words in my dataset.

3.2 Results

In the analysis, each observation is a campaign document. I standardize the index of the relative frequency of communal moral terminology into a z-score and multiply the score by 100. The coefficient of the Trump dummy can hence be interpreted in terms of percent of a standard deviation.

Because the documents exhibit large variation in length, the moral content of these documents is measured with differential measurement error. To account for this, Appendix G formally derives the optimal regression weights as the square root of the total number of words. Thus, I implement WLS regressions of the relative frequency of communal terminology on a binary indicator for Trump.

The analysis of political speeches begins in Table 2. All variables except for binary ones are transformed into z-scores. Column (1) shows that Trump's language exhibits a high relative frequency of communal moral terminology. Columns (2)–(4) document that this results is robust to controlling for document type, year fixed effects, day of year fixed effects, document length, the overall morality of the document (measured by the average relative frequency of using *all* moral foundations), a commonly used language sophistication measure (the Flesch reading ease score), a Republican fixed effect and an indicator for whether the respective candidate turned out to be a presidential nominee. Columns (5) through (7) restrict the set of candidates to relevant sub-samples.

[8]None of the results depend on this particular construction. For example, I have verified that almost identical results hold when I follow an even simpler procedure of counting relative word frequencies across all target words within the four dimensions, without accounting for the imbalances in the number of target words and vices / virtues.

Table 2: Politicians and communal moral rhetoric

	Dependent variable: Rel. frequency communal moral terminology						
	Sample:						
	All candidates				Pres. nominees	GOP	GOP 2016
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 if Trump	8.5**	20.1***	21.4***	13.8***	24.5***	25.5***	26.8***
	(4.1)	(4.4)	(4.4)	(4.7)	(4.6)	(4.2)	(5.8)
Log [# words]			-9.1***	-8.3***	-5.6***	-7.1***	-6.9***
			(1.0)	(1.0)	(1.6)	(1.1)	(2.1)
Overall degree of morality			-3.7	-3.7	-12.0***	6.5***	5.2*
			(2.3)	(2.3)	(4.5)	(1.9)	(2.8)
Flesch reading ease score			-6.0***	-6.0***	-3.3***	-4.6***	-9.5***
			(1.0)	(1.0)	(1.1)	(0.9)	(1.6)
1 if Republican				17.3***	-1.8		
				(1.9)	(2.8)		
1 if presidential nominee				-6.9***		-14.5***	
				(2.2)		(1.9)	
Document type FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Document year FE	No	Yes	Yes	Yes	No	No	Yes
Document day of year FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	16698	16698	16698	16698	5372	10822	3455
R^2	0.00	0.08	0.09	0.10	0.15	0.12	0.23

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. In columns (1)–(4), the sample includes all candidates in 2008–2016. Columns (5)–(7) restrict the sample to presidential nominees (2008–2016), Republicans (2008–2016), and 2016 Republicans, respectively. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Trump is consistently more communal in his moral rhetoric than presidential nominees, Republicans, and 2016 Republicans. In terms of magnitude, the results suggest that Trump used 9–27% of a standard deviation more communal terminology than the average candidate.

Figure 1 illustrates these results by depicting the average relative frequency of communal terminology by candidate, restricting attention to candidates in the presidential elections. One particularly interesting feature of this figure is the large difference in communal rhetoric between Trump and Clinton. While Trump is also more communal than any other recent presidential nominee in absolute terms, what matters most for the demand side analysis below is the *difference* between Trump and Clinton, relative to the difference between, say, Romney and Obama.

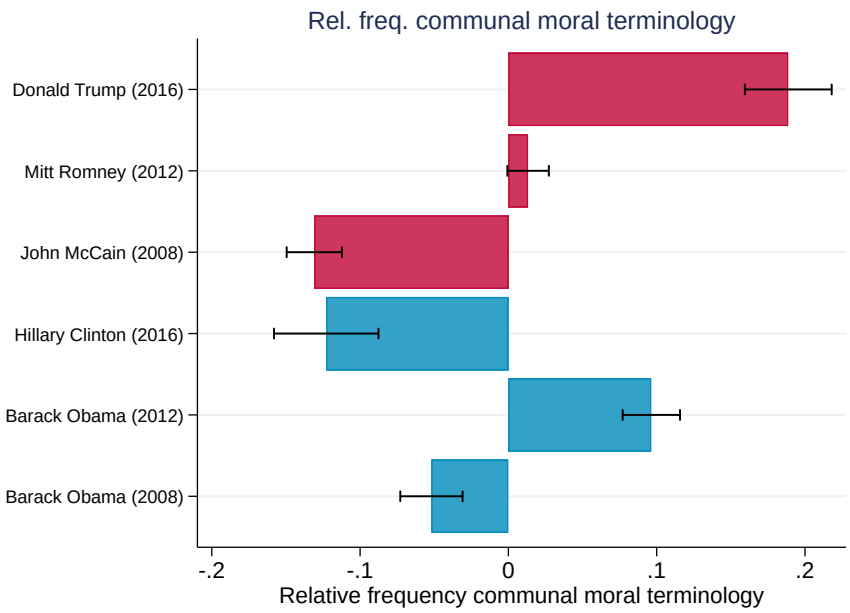

Figure 1: Relative frequency of communal moral terminology. The bar charts depict averages across documents, along with standard error bars. The moral values index is residualized from document type FE, overall morality, reading ease, and log (# of words). As in the regressions, each document is weighted by the square root of the total number of non-stop words.

4 Demand-Side I: Individual-Level Evidence

4.1 Survey Design

I conducted a pre-registered survey of $N = 4,011$ Americans through *Research Now*, a commercial market research internet panel. The pre-registration contains all dependent variables (with one minor exception that is specifically highlighted below), the construction of the explanatory variable, and the sample size.[9] *Research Now* recruited a stratified sample of respondents who are registered voters and born in 1989 or earlier. The sample closely matches the US general population along the following dimensions: age, gender, educational attainment, income, ethnicity, employment status, and state of residence. Table 9 in Appendix C describes the sample characteristics in detail.

The survey contained (i) the full set of MFQ items; (ii) questions to elicit who respondents voted for in the 2008, 2012, and 2016 presidential elections as well as the 2016 primaries (I was not confident enough in respondents' recollection of their voting decisions in earlier primaries to also elicit corresponding responses); (iii) an additional pre-registered outcome variable specified below, and (iv) a wide range of covariates. For example, voting decisions in the 2016 presidential election were elicited using re-

[9]See http://egap.org/registration/2849. The pre-registration specified a sample size of $N = 4,000$. The surplus reflects respondents that started the survey before number 4000 finished.

sponse options: “Trump”, “Clinton”, “Other”, “Don’t remember”, and “Didn’t vote”. To my knowledge, this is the first representative dataset on moral values in the U.S.

All respondents received email invitations to participate in a survey, as is always the case for *Research Now*’s panel members. After clicking on the corresponding link, respondents were routed through a set of screening questions that were used to stratify the sample. Responses were collected 9/20/2017–10/17/2017. As with all surveys, a potential concern is inattention by respondents. Thus, the survey contained three attention checks (e.g., “If you are paying attention, please answer 4.”). 80.1% of all respondents passed all three attention checks and 92.1% passed at least two. All results are robust to restricting the sample to respondents who passed at least two or three attention checks, respectively.

The main dependent variables of interest are (i) the propensity to vote for Trump in the 2016 presidential election, (ii) the difference in the propensity to vote for Trump and prior Republican presidential candidates, i.e., Romney and McCain, (iii) voting for Trump in the 2016 Republican primaries, and (iv) the increase in the propensity to turn out in the presidential election between 2016 and prior elections. The second variable is constructed by generating binary variables for Trump, Romney, and McCain. This variable assumes a value of 100 if the respondent voted for the respective candidate in the corresponding presidential election and 0 if they voted for a different candidate. The dependent variable of interest is then computed as the difference between the binary Trump variable and the average of the corresponding Romney and McCain variables.[10] All of these variables except for the change in turnout were pre-registered. Unfortunately, the possibility of studying both the intensive and extensive margin of voting only occurred to me after I had collected all data.

4.2 Results

The analysis links the outcome variables described above to an individual-level index of the relative importance of communal values that is constructed as described in Section 2.2, i.e., as first principal component of the MFQ foundations. Table 3 summarizes the results from OLS regressions.[11] Columns (1)-(3) document that the relative importance of communal moral values is significantly correlated with voting for Trump. Perhaps more interestingly, columns (4)–(6) show that moral values are also significantly

[10] In Table 13 in Appendix C, I verify that very similar results hold if I instead code a three-step variable for each candidate that is coded as described in the main text but additionally assumes a value of 50 if the respondent did not vote in the respective election. Similar results hold if I code “I don’t remember” as 50.

[11] As discussed in fn. 4 in Section 2, all results in Table 3 are robust to using the pre-registered index of the relative importance of communal moral values, see Table 12 in Appendix C.

related to the difference between voting for Trump and past Republican presidential candidates (Romney and McCain).[12] Table 13 in Appendix C confirms that this result is robust to comparing Trump only to Romney or only to McCain. Columns (7)–(9) show that moral values are likewise related to voting for Trump in the GOP primaries. Quantitatively, an increase in moral communalism by one standard deviation is associated with an increase in voting for Trump in the primaries by about nine percentage points.

Taken together, columns (1)–(12) provide consistent evidence for a strong relationship between moral values and the *intensive* margin of voting. However, it is conceivable that moral values also affect the decision to turn out in the first place. Columns (10)–(12) document that people with stronger communal moral concerns were indeed differentially more likely to increase their propensity to vote relative to their average turnout in 2008 and 2012. The point estimate suggests that a one standard deviation increase in the relative importance of communal values is associated with an increase in the probability of turning out of about 1.5 percentage points (given that I restricted the sample to registered voters, the baseline probability of voting is between 86% and 88% across the 2008–2016 elections). Thus, it appears as if Trump's popularity with voters of strong communal moral concern induced both a shift along the extensive and intensive margin of voting.

All of these results hold when I exploit variation within states or within counties (these regressions include 1,190 county fixed effects). In addition, the results hold conditional on a large and rich vector of covariates, all of which are described in detail in Appendix K. The covariates include age fixed effects, gender, income bracket (10 steps), educational attainment (6 steps), ethnicity fixed effects, and population density.[13] The results are quantitatively very similar when I include fixed effects for the categorical income and education controls.

A different way to appreciate these results is to compute average moral values across groups of respondents that exhibit a certain voting pattern. This is done in Figure 2. Here, both panels depict average moral communalism across respondents that report a given voting pattern. The left panel focuses on voting in the 2016 presidential election, conditioned by voting in the 2012 election. For instance, the first bar shows average moral values of respondents that voted for Obama in 2012 and for Clinton in 2016. Likewise, the third bar shows average values of respondents voted for Clinton in 2016 and voted neither for Obama nor for Romney in 2012. The figure documents a clear

[12]The difference in sample size between columns (1)–(3) and (4)–(6) is driven by the fact that a respondent had to vote in all elections 2008–2016 to be included in columns (4)–(6). Table 13 in Appendix C documents that very similar results hold when I include non-voters in the estimations.

[13]The "population density" variable is constructed as the average of the z-scores of (i) ZIP code level log population density and (ii) self-reported city size in ten categories. Very similar results hold when I use these two variables separately (or jointly).

Table 3: Moral values and voting: Individual-level evidence

	Dependent variable:											
	Votes									Turnout		
	Trump in election			Δ [Trump – Ave. GOP]			Trump in primaries			Δ [2016 – Ave.]		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rel. imp. communal values	20.7***	17.1***	16.1***	3.09***	2.90***	3.47***	9.12***	8.04***	9.52***	1.50***	0.98**	1.36**
	(0.82)	(0.77)	(0.95)	(0.47)	(0.54)	(0.77)	(1.34)	(1.30)	(1.99)	(0.45)	(0.48)	(0.59)
1 if female		-3.94***	-2.75		1.05	0.78		-6.31***	-1.27		-0.11	0.53
		(1.52)	(2.00)		(1.46)	(2.00)		(2.42)	(3.82)		(1.12)	(1.43)
Income bracket		0.18	0.34		-0.58	-0.33		-0.35	-0.96		0.63**	0.30
		(0.39)	(0.53)		(0.39)	(0.52)		(0.60)	(1.02)		(0.30)	(0.39)
Education		-0.74	-1.01		-1.73***	-1.40**		-5.67***	-5.24***		-0.75*	-0.22
		(0.54)	(0.71)		(0.53)	(0.69)		(0.84)	(1.35)		(0.39)	(0.50)
Population density		-5.40***	-5.63***		-0.66	-1.19		-2.55*	-2.62		-0.77	-2.34**
		(0.84)	(1.62)		(0.85)	(1.74)		(1.32)	(3.04)		(0.63)	(1.19)
1 if employed full-time		0.65	1.04		0.27	-0.62		2.28	9.28*		1.92	1.81
		(1.77)	(2.38)		(1.77)	(2.31)		(2.84)	(4.75)		(1.43)	(1.70)
State FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
County FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Age FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Ethnicity FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	3471	3422	3422	2973	2929	2929	1888	1852	1852	4011	3949	3949
R^2	0.17	0.34	0.56	0.01	0.07	0.42	0.02	0.16	0.54	0.00	0.04	0.38

Notes. OLS estimates, robust standard errors in parentheses. In columns (4)–(6), the dependent variable is the difference in the propensity to vote for Trump and the average propensity to vote for Romney and McCain, where the propensity to vote for a given candidate is a binary indicator that equals zero if the respondent voted for a different candidate and 100 if they voted for the respective candidate. In columns (10)–(12), the dependent variable is the difference in the propensity to vote between the presidential election 2016 and the average propensity to vote in 2012 and 2008. Population density is constructed from ZIP code level log population density and a ten-step variable of self-reported city size, see Appendix K. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

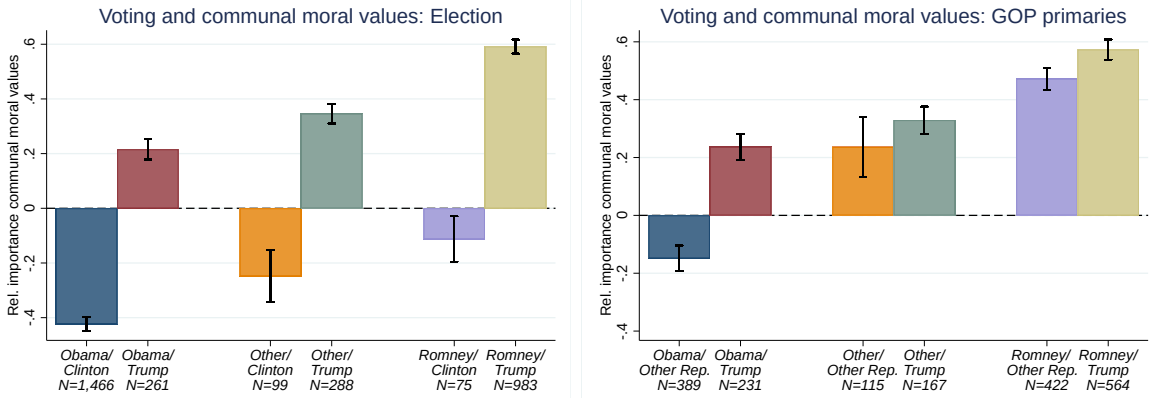

Figure 2: Moral values by type of voter. The bar graph depicts the average moral communalism index of all respondents that report a given voting pattern. The left panel focuses on voting behavior in the 2016 presidential election, conditioned by voting in the presidential election 2012. Here, the first bar corresponds to voters who voted Democratic in both presidential elections. The second one corresponds to voting for Obama and voting for Trump etc. The group "Other" includes respondents who voted for a third candidate, did not vote, or do not remember who they voted for (in 2012). The right panel follows an analogous logic, except that here groups are partitioned by their voting pattern in the 2016 GOP primaries, conditioned by voting in the 2012 presidential election. For example, the first bar corresponds to voters that voted for Obama in 2012 and for a candidate other than Trump in the 2016 GOP primaries. The difference in overall sample size between the left panel and column (1) of Table 3 reflects respondents who voted for a third candidate in 2016.

pattern: conditional on voting behavior in 2012, Trump voters are much more communal in their morality than Clinton voters, hence visualizing the "switching" logic of the regressions above.

The right panel of Figure 2 follows the same logic, but focuses on variation within the 2016 Republican primaries, conditional on a given voting pattern in the 2012 presidential election. Again, Trump voters consistently exhibit a stronger emphasis on communal moral values than voters for other GOP candidates.

4.3 Benchmarking Against Traditional Variables

A perhaps helpful way of illustrating the predictive power of the structure of moral values is to benchmark the results against more traditional variables that are known to be highly predictive of voting patterns in general. For this purpose, I focus on (i) household income bracket (in ten steps), (ii) religiosity (elicited on an eleven-point scale), (iii) population density, and (iv) political views towards the size of government, gun control, crime policies, and environmentalism. To measure these political views, I use 13 questions from the Cooperative Congressional Election Study (CCES). As I detail in Appendix K, I construct a summary statistic of political conservatism from these questions through a principal component analysis. While moral values might plausibly generate some of these policy views, it will nevertheless prove useful to compare political

conservatism with the relative importance of communal moral values.

Consistent with common widsom, column (1) of Table 4 documents that political conservatism, religiosity, income, and local population density are all strongly and significantly positively correlated with the average propensity to vote for McCain and Romney, also conditional on the structure of moral values. For example, the summary statistic of political conservatism exhibits a raw correlation of $\rho = 0.49$ with the average propensity to vote Republican.[14] However, conditional on moral values, the relationship between these variables and voting for Trump *relative to other Republicans* is very weak, see columns (2)–(3). Thus, these traditional variables appear to explain very little of Trump's relative success. This is arguably a stunning finding given the strength of these variables in predicting the Democrat vs. Republican divide. In contrast, moral values continue to be significantly related to Trump voting conditional on these variables, and the OLS coefficients are very similar in magnitude to those in Table 3.

To provide more direct evidence for the extent to which concepts such as in-group loyalty are of importance to voters relative to abstract economic and social policies, the survey contained an additional pre-registered outcome variable. This survey item asks respondents which of two aspects is more important (on an 11-point scale) for their evaluation of Trump: (i) the extent to which Trump shows loyalty to his supporters and does not betray the respondent's community or (ii) Trump's economic and social policies, such as his impact on the unemployment rate. Column (4) documents that communal moral values are strongly related to the extent to which voters evaluate Trump based on loyalty as opposed to his economic policies.

4.4 Robustness Checks

Additional covariates. Tables 14 and 15 in Appendix C document that the results are robust to further controlling for religious denomination, trust in politicians, trust in mainstream media, trust in people in general, altruism, subjective employment prospects, and occupation fixed effects.

Alternative measures of moral values. Table 16 in Appendix C investigates robustness against alternative definitions of the relative importance of communal moral values. First, the pre-registration specified a robustness check in which the relative importance of communal values is constructed such that each MFQ foundation receives equal weights (where in-group and authority again enter negatively). Second, I construct the moral communalism index as first principal component of all five MFQ moral

[14]The correlation between the conservatism and moral values variables is $\rho = 0.46$.

Table 4: Moral values and voting: Benchmarking

	Dependent variable:				
	Votes			Evaluation of Trump	
	Ave. GOP	Δ [Trump – Ave. GOP]	Trump in primaries	Loyalty vs. economy	
	(1)	(2)	(3)	(4)	(5)
Rel. imp. communal values	6.58***	2.09**	8.57***	0.13***	0.13***
	(0.91)	(0.81)	(1.80)	(0.02)	(0.04)
Political conservatism	14.4***	1.63	0.39		0.0033
	(0.94)	(1.02)	(1.60)		(0.04)
Religiosity	3.43***	0.99	2.76*		0.043
	(0.89)	(0.92)	(1.55)		(0.03)
Income bracket	1.09**	-0.30	-0.32		-0.036**
	(0.45)	(0.50)	(0.77)		(0.02)
Population density	-4.11***	-0.32	-2.85*		-0.11**
	(1.00)	(1.12)	(1.69)		(0.05)
State FE	Yes	Yes	Yes	Yes	No
County FE	No	No	No	No	Yes
Additional controls	Yes	Yes	Yes	No	Yes
Observations	1953	1862	1205	4011	2352
R^2	0.45	0.09	0.20	0.03	0.43

Notes. OLS estimates, robust standard errors in parentheses. In column (1), the dependent variable is the average propensity to vote for Romney and McCain, where the propensity to vote for a given candidate is a binary indicator that equals zero if the respondent voted for a different candidate and 100 if they voted for the respective candidate. In column (2), the dependent variable is the difference between the propensity to vote for Trump and the average propensity to vote for Romney and McCain. In column (3), the dependent variable is a binary indicator for whether the respondent voted for Trump in the GOP primaries. The dependent variable in column (4) is the z-score of responses to the question whether respondents predominantly evaluate Trump based on whether he shows loyalty to his supporters or his general economic and social policies. See Appendix K for a description of the political conservatism variable. Population density is constructed from ZIP code level log population density and a ten-step variable of self-reported city size, see Appendix K. Additional controls include age fixed effects, gender, educational attainment, and ethnicity fixed effects. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

foundations, including purity / sanctity.[15] Third, I construct the index as first principal component of the survey items underlying the MFQ foundations. Regardless of the precise definition of the moral communalism index, the results are always very similar.

[15]While purity / sanctity relates to the religious domain and is hence not directly amenable to the interpretation of individualizing vs. communal moral values, the resulting index endogenously loads almost equally on all five dimensions, where in-group / loyalty, authority / respect, and purity / sanctity have positive weights and the other two foundations negative weights.

Separate MFQ survey items. Tables 17 through 20 in Appendix C analyze the relationship between Trump voting (both in the election and in the primaries) and each of the 24 survey items from which the MFQ foundations are derived. The results show that 39 out of 48 coefficients have the expected sign, i.e., negative for items that underlie care / harm and fairness / reciprocity and positive for items that underlie in-group / loyalty and authority / respect. Of these 39 items, 31 are statistically significant at least at the 10% level. Thus, the relationship between moral values and voting does not seem to hinge on any particular survey question.

Measurement error. In my survey – relative to the official election outcome – "too many" respondents reported to have voted for a third candidate. Of those respondents that report to have voted and remember their vote, 44.2% and 47.2% report having voted for Trump and Clinton, respectively. In the election, Trump and Clinton received 46.1% and 48.2% of the vote, respectively. I conduct two reclassification exercises to check the sensitivity of the results for the presidential election. If a voter were unwilling to admit that they voted for Trump, they may have claimed that they did not vote at all, that they do not remember who they voted for, or that they voted for a third candidate. First, I classify all respondents who state that they did not vote (11.9%), or that they do not remember who they voted for (1.7%), as if they had voted for Trump. Second, I classify all respondents who state that they voted for a third candidate (7.5%) as if they had voted for Trump. In both reclassification exercises, moral values continue to be strongly related to the difference between voting for Trump and prior Republican candidates, see Table 21 in Appendix C. Below, I provide further evidence that biased self-reports do not generate the results through a county-level analysis that makes use of official vote records.

5 Demand-Side II: County-Level Evidence

5.1 Data

I complement the individual-level analysis with a county-level analysis. These modes of analysis exhibit different strengths and weaknesses: the tailored internet survey described above featured rich individual-level data and a representative sample, but had to make do with self-reported voting decisions. The county-level analysis, on the other hand, builds on a different, non-representative, dataset on moral values, but makes use of official voting records. In addition, the county-level analysis allows me to rule out reverse causality as a driver of the results. Perhaps most importantly, the county-level

analysis allows me to extend the scope of the analysis to the full set of candidates that competed for the presidency since 2008.

In 2008, Haidt and his collaborators uploaded the MFQ on www.yourmorals.org for all visitors to complete. Presumably due to extensive media coverage and because the online tool provides individualized feedback on how respondents' moral values compare to those of others, traffic has since remained high. I received access to all individual-level responses from August 2008 through March 7, 2017. The data span a total of 249,044 United States residents. I exclude from the sample all individuals who indicated that they grew up in another country because most of them are presumably not eligible to vote. The data contain respondents' ZIP codes, age, gender, ethnicity, educational attainment, and, for a small subset of respondents, religious affiliation, political orientation, and subjective socioeconomic status. The sample of respondents is evidently neither random nor representative of the US population. The average age of respondents is 35.6, 46.5% are female, and only 8.6% have not entered college. I discuss the role of selection problems in Section 5.2.

From these data, I construct an individual-level index of the relative importance of communal moral values just as in Section 4. That is, I first compute the MFQ foundations and then apply the weights from the principal component analysis in Section 4. To generate a county-level variable, I aggregate the data by matching respondents' ZIP codes to counties.[16] In total, I was able to match 183,517 respondents. The average and median number of respondents in a given county are 67.8 and 9.0, respectively. The sometimes relatively small number of respondents within a county leads to differential measurement error across counties. To account for this, the analysis employs WLS regressions that weight each observation by the square root of the number of respondents. Appendix G derives these weights as theoretically optimal procedure under a linear population model and error terms with standard assumptions.

I standardize the county-level index into a z-score. Figure 3 illustrates the distribution of moral values across counties. Values exhibit large heterogeneity, also within relatively narrow geographic regions.[17] This heterogeneity appears to reflect temporally stable variation: as I document in Figure 8 in Appendix A, county-level values computed separately for respondents in 2008–2011 and in 2012–2016, are strongly correlated with each other once counties with few respondents are ignored ($\rho = 0.84$).

[16] Some ZIP codes cover multiple counties. In such cases, I duplicate all respondents in the respective ZIP code x times, where x is the number of counties that respondents could potentially live in. When I aggregate the data at the county level, each respondent is then weighted by $1/x$, so that in total each respondent receives a weight of one.

[17] The distribution of moral values in Figure 3 does not take into account that for many counties moral values are measured rather imprecisely because of a small number of respondents in the MFQ. Figures 9 and 10 in Appendix A present maps in which the sample is restricted to counties with at least 5 and at least 20 respondents, respectively.

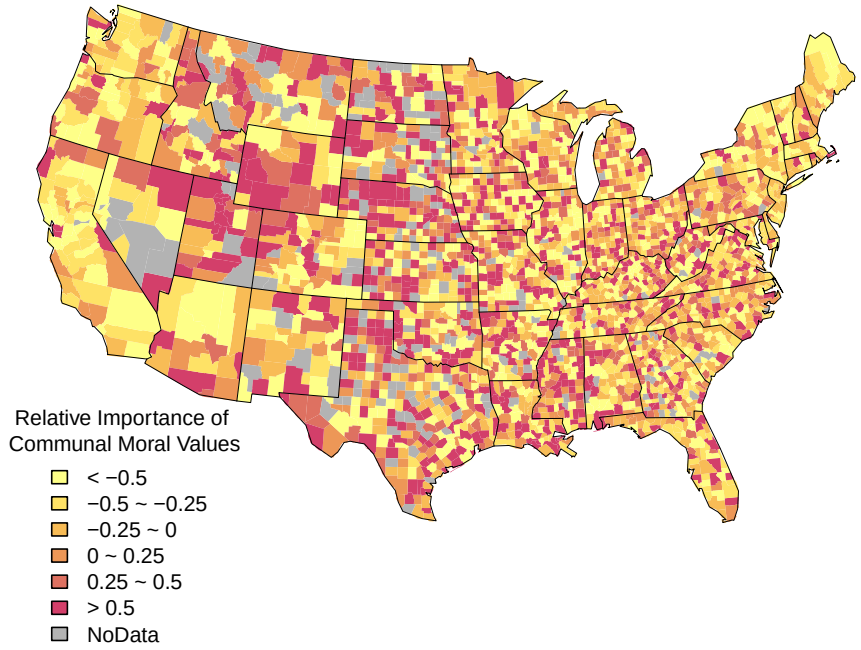

Figure 3: Relative importance of communal moral values at county level.

The voting data stem from "Dave Leip's Atlas of US Presidential Elections" (Leip, 2004). In total, the analysis includes 2,906 counties, though the number of observations for a given election is typically smaller than that. As covariates, the analysis employs various county-level measures such as median household income. Appendix K describes all variables and their sources in detail.

5.2 Results

The county-level average relative importance of communal values is strongly correlated with Trump's vote share in the presidential election ($\rho = 0.50$, $p < 0.01$), just as in the individual-level analysis. Perhaps more interestingly, moral values are also correlated with Trump's vote share relative to other Republicans. Table 5 reports these results.

Columns (1)–(4) document that communal moral values are also correlated with the difference between the vote share for Trump and the average vote share of GOP candidates in 2000–2012, where the latter can be thought of as medium-run voter potential for the Republican party in a given county.[18] The point estimate suggests that a one standard deviation increase in county-level moral communalism is associated with an increase in Trump's vote share relative to other Republicans by roughly three percent-

[18]Table 22 in Appendix D documents that very similar results hold then the dependent variable is computed as difference in vote shares between Trump and the average of 2008–2012, as in the individual-level analysis.

Table 5: Moral values and county-level voting patterns

	Dependent variable:											
	Vote share								Δ Turnout [2016 – Ave. ('00 – '12)]		Δ Turnout [2016 – Ave. ('08 – '12)]	
	Δ [Trump – Ave. GOP]				Trump in primaries				Election	GOP prim.	Election	GOP prim.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rel. imp. communal moral values	3.46***	2.64***	1.98***	2.27**	3.79***	3.12***	1.94***	4.26*	0.048	1.65***	0.41***	1.42***
	(0.51)	(0.42)	(0.36)	(0.88)	(0.75)	(0.58)	(0.61)	(2.24)	(0.13)	(0.20)	(0.13)	(0.16)
Log [Median HH Income]		-2.29***	-1.11***	-0.77		-0.79	0.30	2.07	-0.11	-0.11	-0.24***	-0.028
		(0.24)	(0.34)	(0.57)		(0.54)	(0.88)	(1.39)	(0.10)	(0.12)	(0.09)	(0.11)
Unemployment rate		-0.24	0.98**	1.25		2.68***	2.12*	4.20	-0.25	-1.06***	-0.70***	-0.99***
		(0.36)	(0.48)	(0.95)		(0.60)	(1.22)	(2.82)	(0.16)	(0.20)	(0.16)	(0.17)
% employed in manufacturing		3.48***	3.53***	4.52***		2.99***	3.73***	5.91***	0.34***	1.46***	0.55***	1.26***
		(0.30)	(0.28)	(0.48)		(0.51)	(0.56)	(1.66)	(0.11)	(0.15)	(0.10)	(0.13)
Longitude		-1.98	11.0**	17.9		4.49*	31.0***	15.2	0.67	0.30	0.11	0.19
		(1.42)	(4.51)	(16.37)		(2.29)	(9.22)	(25.03)	(0.64)	(0.73)	(0.67)	(0.65)
Latitude		1.62**	-2.39	-0.16		-2.09	-4.72	-4.50	-0.64**	0.74	-0.60**	0.75**
		(0.76)	(2.63)	(6.21)		(1.68)	(5.65)	(15.19)	(0.29)	(0.47)	(0.26)	(0.33)
Ave. precipitation		0.55	2.78***	4.01*		-0.11	-0.084	1.86	-0.20	-0.50**	-0.12	-0.49***
		(0.35)	(1.04)	(2.16)		(0.61)	(1.69)	(2.63)	(0.16)	(0.21)	(0.12)	(0.17)
State FE	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Commuting zone FE	No	No	Yes	No	No	No	Yes	No	No	No	No	No
CBSA FE	No	No	No	Yes	No	No	No	Yes	No	No	No	No
Observations	2891	2875	2875	1762	2689	2673	2673	1670	2875	2416	2875	2594
R^2	0.45	0.63	0.80	0.83	0.88	0.90	0.91	0.91	0.65	0.83	0.57	0.82

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. The dependent variable in columns (1)–(4) is the difference between Trump's vote share in the election and the average GOP vote share in presidential elections between 2000 and 2012. The dependent variable in (5)–(8) is Trump's vote share in the GOP primaries. In columns (9) and (10), the dependent variable is the difference in turnout between 2016 and the average of 2000–2012, for either the election or the GOP primaries. In columns (11) and (12), the dependent variable is the difference in turnout between 2016 and the average of 2008–2012, for either the election or the GOP primaries. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

age points. This result holds conditional on median household income, unemployment rates, the share of manufacturing jobs, and a vector of geographic and climatic variables. While columns (1) and (2) include state fixed effects, the regressions in columns (3) and (4) exploit variation within much more narrowly defined geographical units. In column (3), the analysis includes 696 commuting zone (CZ) fixed effects. Column (4) provides an even more conservative estimation that includes fixed effects for core-based statistical areas (CBSAs). A CBSA is a geographic area that consists of one or more counties anchored by an urban center. Focusing on variation within CBSAs is not just conservative but also appealing because it is an implicit robustness check for excluding counties from very rural areas from the sample. Here, I exploit variation across 1,665 counties within 908 CBSAs. Despite this very demanding specification, moral values remain a significant correlate of Trump's vote share relative to past Republicans. Moreover, the point estimates are always similar.

Columns (5)–(8) extend the analysis to the GOP primaries. Again, Trump's vote share is consistently related to communal moral values, within states, commuting zones, and CBSA's.[19]

Columns (9)–(12) study the relationship between county-level values and increases in turnout relative to previous election years, both in the general election and in the GOP primaries.[20] Communal moral values are consistently positively related to increases in voter turnout. These results are strongest for the GOP primaries and for the comparison between 2016 turnout and average turnout in 2008-2012. In sum, as in the individual-level analysis, it appears as if Trump's communal moral appeal affected both the intensive and the extensive margin of voting.

5.3 Differential Self-Selection and Reverse Causality

The county-level analysis rests on a non-representative pool of respondents. In order for selection to explain the results, it would have to be the case that people with communal moral values were differentially more likely to select into the online survey in counties that experienced large increases in GOP vote shares and large increases in turnout. To assess the sensitivity of the results to differential self-selection across counties, I recompute average county-level moral values after residualizing individual-level values

[19]Table 23 in Appendix D additionally controls for recent changes in county-level income, medium-run changes in the fraction of people employed in manufacturing, local inequality, the fraction of the population that has at most a high school degree, the fraction of the population that is religious, the local racism index developed by Stephens-Davidowitz (2013), a social capital index, and local population density. Even though some of these variables are probably best thought of as "bad controls", moral values are consistently significantly related to both the difference in vote shares between Trump and past Republicans as well as Trump's vote share in the GOP primaries.

[20]Turnout is computed as total number of votes divided by the population aged 18+, see Appendix K.

Table 6: Past moral values and Trump votes

	Dependent variable:			
	Vote shares		Δ Turnout [2016 – Ave.]	
	Δ (Trump – Ave.)	Trump in primaries	Election	GOP Primaries
	(1)	(2)	(3)	(4)
Rel. imp. communal moral values (2008-2011)	2.17*** (0.34)	3.20*** (0.58)	0.27** (0.11)	0.97*** (0.15)
State FE	Yes	Yes	Yes	Yes
Economic controls	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes
Observations	2581	2406	2581	2344
R^2	0.63	0.90	0.60	0.82

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. County-level moral values are computed based on respondents in 2008–2011. All dependent variables are computed as in Table 5. That is, the dependent variable in column (1) is the difference in vote shares between Trump and the average GOP vote share in 2000–2012. The difference in turnout in columns (3) and (4) is computed relative to the average turnout in 2008–2012. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

from age fixed effects, gender, educational attainment fixed effects, and ethnicity fixed effects. Table 24 in Appendix D replicates the analysis in Table 5 using this measure. The results are very similar to those reported in the main text. This suggests that differential selection into the online survey is an implausible driver of the results.

It is conceivable that the correlation between Trump votes and moral values is driven by reverse causality, i.e., that Trump's political activism caused changes in moral values, perhaps differentially across counties. One additional advantage of the county-level analysis relative to the individual-level analysis is that it allows me to rule out such reverse causality as the driver of the correlations reported thus far.

For this purpose, I make use of the time variation in the MFQ data, i.e., I exploit the idea that the structure of people's moral values in the past is unlikely to have been affected by Trump's political actions or speeches because he was not politically active at the time. Table 6 relates county-level vote shares of Trump to the average relative importance of communal values as measured in 2008–2011.[21] Naturally, these analyses rely on a much smaller sample of respondents. Still, Table 6 documents that the results using the measure of past moral values are very similar to the baseline results, also quantitatively. Thus, it appears as if Trump tapped into pre-existing moral convictions.

[21] I have verified that very similar results hold when the set of respondents is restricted to 2008–2010.

6 The General Pattern: 2008 – 2016

Up to this point, the empirical analysis exclusively focused on Trump, i.e., the 2016 election. However, if the general methodology of connecting demand- and supply-side analyses of morality that I develop in this paper is meaningful more generally, then it should also be able to explain voting patterns for candidates other than Trump.

This section extends the previous analyses to the entire set of contenders for the American presidency in 2008–2016. By the nature of the available data, this analysis is less rich than in the case of Trump, i.e., it needs to rely on the county-level analysis alone and cannot speak to reverse causality. To be able to study a reasonably large set of candidates, the analysis needs to move away from the presidential election and instead focus on the primaries. This approach has the attractive feature that it only exploits variation in vote shares and political rhetoric *within* Democrats or Republicans in the same election year, respectively.

To study the relationship between morality and voting patterns across candidates, I directly connect the *quantitative* results of the supply- and demand-side analyses. The logic of the exercise is straightforward: the larger the extent to which a candidate is more communal in their moral appeal than their respective competitors, the larger should be the relationship between that candidate's vote share and the county-level moral communalism index. Thus, I first determine the relative moral appeal of any given politician through text analyses and then evaluate whether the correlation between this candidate's vote shares in the respective primaries and county-level values matches the supply-side "prediction". The set of candidates includes those politicians for which I have access to at least 100 campaign documents and that received at least 1% of the popular vote in the respective primaries. This leaves me with 19 candidates.

For each candidate, I run analogous regressions to those presented above for Trump. That is, for each candidate, I estimate (i) the correlation between the relative frequency of communal moral terminology and the corresponding candidate dummy (ii) the correlation between a candidate's county-level vote share and the county-level moral communalism index. Tables 25–32 in Appendix E present the corresponding regressions results.[22] For each regression, I save the corresponding point estimate, partial out election fixed effects, and then plot the residual regression coefficients against each other. The result, Figure 4, presents the quantitative relationship between supply- and demand-side analyses. Here, the x-axis denotes the supply side, i.e., the coefficient of the candidate dummy in regressions with communal moral terminology as the dependent variable. The y-axis, on the other hand, denotes the demand side, i.e., the coefficient of county-

[22]Figures 11–13 in Appendix E visualize the relative frequency of communal moral rhetoric for all candidates in a given election year.

level moral communalism in regressions with a candidate's vote share as the dependent variable. If the supply-side analysis was a good predictor of demand-side results, these regression coefficients should be correlated with each other.

Figure 4 shows that this prediction is borne out in the data. When I exclude the 2008 Democratic primaries from the data, the regression coefficients exhibit a correlation of $\rho = 0.67$ (left panel).[23] For, example, John McCain is less communal than his 2008 competitors and his vote shares is negatively correlated with county-level communalism. Mitt Romney is about average in terms of his communal moral appeal and his vote share is uncorrelated with communal values. Hillary Clinton is less communal than her 2016 Democratic competitors, and her vote share is negatively correlated with moral communalism.

Moreover, the scatter plot shows that the supply- and demand-side analyses match up not just in qualitative terms, but also quantitatively. For example, Newt Gingrich and Marco Rubio are both less communal than their respective competitors (supply-side coefficient smaller than zero), yet Rubio is even less communal in relative terms and this is matched up by the demand-side analysis in which the relationship between vote shares and county-level communalism is even more negative for Rubio than for Gingrich. A final interesting observation about the left panel of Figure 4 is that the fitted regression line passes almost exactly through (0,0). This suggests that whenever a candidate is more communal than their competitors, their vote share is indeed positively correlated with county-level communalism.

The right panel of Figure 4 presents the same scatter plot but includes the 2008 Democratic primaries. Here, the raw correlation between the regression coefficients drops to $\rho = 0.18$, yet the figure is strongly suggestive that Barack Obama at the very bottom right constitutes a large outlier (Clinton in 2008 is essentially just the complement of Obama).[24] This raises the question why Obama would be an outlier. One potential conjecture is that Obama's relatively strong communal appeal in fact antagonized some communal voters: if successful communal appeal requires some form of ethnic similarity, then speaking to communal values may actually induce those with communal values to vote *against* communal candidates if they are of a different "tribe".

In any case, abstracting from the perhaps special case of Obama, the quantitative results of supply- and demand-side analyses match up very well. This suggests that the general methodology that I develop in this paper appears useful more generally.

[23] In robustness checks, I re-compute this correlation based on demand-side regression analyses that include commuting zone or state fixed effects, as opposed to CBSA fixed effects. In these analyses, the raw correlation between supply- and demand-side coefficients is $\rho = 0.64$ and $\rho = 0.56$, respectively, see Figures 14 and 15 in Appendix E.

[24] When I exclude only Obama, the raw correlation is $\rho = 0.49$.

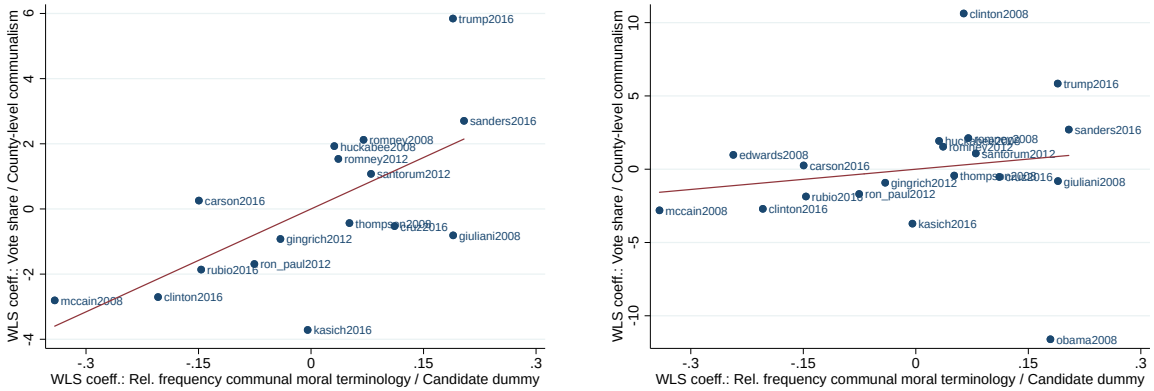

Figure 4: Relationship between demand- and supply-side analyses. This figure plots two partial correlations against each other. The x-axis denotes the WLS coefficient of a regression of the relative frequency of communal terminology on a candidate dummy (conditional on the controls in column (4) of Table 2), where the set of candidates in any given regression is restricted to the contenders in the respective primaries. The y-axis depicts the WLS coefficient of a regression of county-level vote shares of the respective candidate on the county-level relative prevalence of communal moral values, conditional on CBSA fixed effects. The regression coefficients on both axes are residualized from election fixed effects. The sample includes all candidates for which I have access to at least 100 campaign documents and who received at least 1% of the popular vote in the respective primaries. The left panel excludes the 2008 Democratic contenders (Clinton, Edwards, and Obama).

7 Why Trump? The Role of Moral Threat

If moral values are important in understanding election outcomes also independently of Trump, then why didn't earlier very communal (Republican) candidates succeed in winning the presidency? After all, as will become evident below, candidates such as Rudy Giuliani or Marco Rubio were at least as communal in their moral appeal as Trump. While I do not pretend to be able to conclusively answer this question, we can make some progress by studying the relative salience of moral concepts across elections and candidates. After all, voting decisions are multidimensional problems, so that moral values must compete with other considerations in determining a decision. The extent to which people actually base their voting choices on moral values might crucially depend on people's perceptions of whether the moral order is under threat and hence requires action. Indeed, Feldman and Stenner (1997) and Stenner (2005) have argued that communal values gain prominence in effecting people's behavior as they feel that moral threat becomes more severe. It might hence be possible for politicians not just to cater to a particular kind of morality, but also to signal the current importance of moral concerns in general.

As discussed in Section 3.1, moral language can be distinguished not only based on whether it is predominantly communal or individualizing in nature, but also by whether it uses moral vices or virtues, i.e., whether it emphasizes moral threat ("betray") or

moral well-doing ("loyal"). To quantify the extent to which politicians differ in their propensity to appeal to moral threat, I compute the difference between the average frequency of vice and virtue words across MFQ foundations. That is, this variable does not differentiate between communal and individualizing values, but only measures *how* values are encoded:

$$\text{Rel. freq. moral threat terminol.} = \frac{\Delta \text{ In-group } + \Delta \text{ Authority } + \Delta \text{ Care } + \Delta \text{ Fairness}}{\text{Total number of non-stop words}}$$

where

$$\Delta\, i = \Big[\text{Ave}_i^{\text{vices}}(\text{word freq.})\Big] - \Big[\text{ Ave}_i^{\text{virtues}}(\text{word freq.})\Big]$$

To analyze patterns across politicians, I again first residualize this measure from document type fixed effects, overall morality, reading ease, and text length and then collpase it at the candidate level.

Figure 5 presents a scatter plot of the "moral types" of all candidates in the 2008–2016 primaries for which I have access to at least 100 campaign documents and that won at least 1% of the popular vote. Here, the x-axis denotes the relative frequency of moral threat rhetoric, while the y-axis depicts the relative frequency of communal moral terminology. As is evident from the figure, these two dimensions of moral language exhibit mutually independent variation. Trump (in the very top right) is among the candidates with the hightest communal moral appeal. In particular – as discussed in Section 3 – he is more communal than any other recent presidential nominee. And while a few other Republican candidates are even more communal than Trump, he exhibits by far the largest relative frequency of moral threat terminology.[25]

In addition, Figure 5 suggests that the 2016 candidates in general speak about morality relatively more in vice than in virtue form: among the five candidates with the highest emphasis on moral threat, four are 2016 Republicans. This is indicative that moral threat was more salient in the 2016 election than in earlier years, which perhaps rationalizes that earlier communal candidates did not succeed in garnering sufficient support. Indeed, re-inspecting Figure 4 from Section 6, it is evident that the relationship between moral values and vote shares is particularly large for Trump (notice that Trump is located substantially above the regression line). Taken together, these patterns are suggestive that the strong relationship between values and voting for Trump is a result of an increased emphasis on concerns about threat to the moral order.

[25]Table 33 in Appendix F confirms these patterns through formal regression analyses.

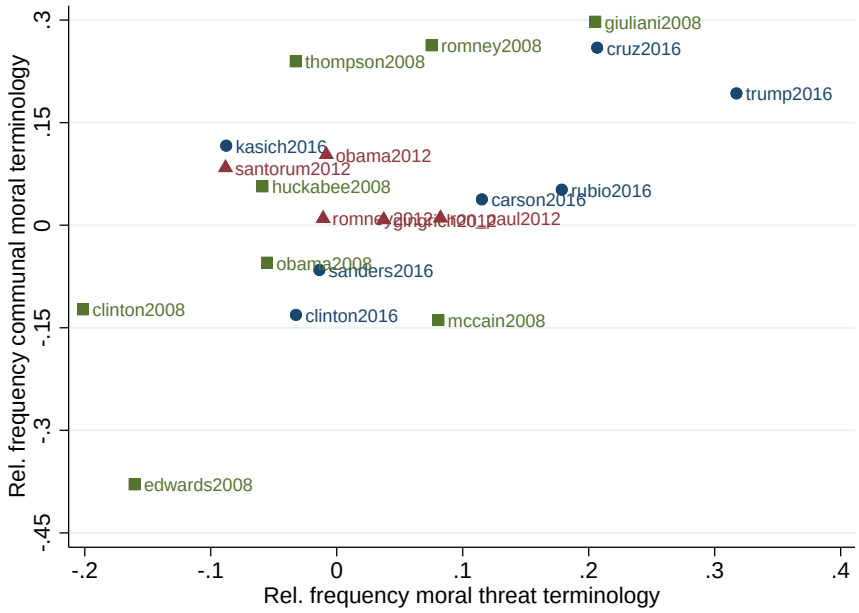

Figure 5: Moral "types" of politicians. The scatter plot shows the average relative frequency of moral threat terminology and the average relative frequency of communal moral terminology by politician. Both variables are residualized from document type FE, overall morality, reading ease, and log (# of words). As in the regressions, the politician-level summary statistic is computed by weighting each document by the square root of the total number of non-stop words. Blue dots correspond to 2016, red triangles to 2012, and green squares to 2008.

8 Conclusion

Based on recent developments in moral psychology, this paper has developed a methodology to jointly study the supply- and demand-side of moral values in voting contexts. The results document that heterogeneity in the structure of morality is systematically related to variation in candidate's vote shares in ways that are predicted by text analyses of campaign documents. These results are perhaps particularly noteworthy for Trump: he exhibits a large communal moral appeal and his vote share is indeed strongly positively correlated with the relative prevalence of a communal morality, both in the presidential election and in the primaries.

As discussed above, it is important to keep in mind that the results do not – and are not meant to – take a stand on whether some voters are more or less moral than others. Rather, the empirical analysis merely concerned heterogeneity in which types of moral values people emphasize, how politicians (sub-)consciously appeal to these moral considerations, and how understanding this heterogeneity on both the supply- and the demand-side might help us in making sense of recent election results.

More broadly, the paper links to the recent debate about voting patterns both in the U.S. and in Europe. Researchers and commentators have pointed to two interesting

facts: (i) a strong rural-urban divide in voting (e.g., United States, Great Britain, Germany) and (ii) particularly pronounced support for right-wing parties not among the very poor, but among working class voters.

A common narrative to rationalize these stylized facts has been that many working class voters in rural areas have experienced stagnant real wages or even job losses due to a decline in domestic manufacturing. But while many commentators have attributed the success of Trump and others to economic reasons, other voices have forcefully argued that in voting for Trump many voters might actually have acted against their material self-interest, hence raising the question of which motives ultimately underlied their voting decisions. Sociologists, on the other hand, have long argued that morality plays a key role in understanding the patterns described above, in particular because the working class outside of the urban centers exhibits a high demand for communal values. The results in this paper suggest that these views should be taken seriously also in quantitative research on voting patterns.

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A Additional Figures

A.1 Text Analysis

A.1.1 Descriptives

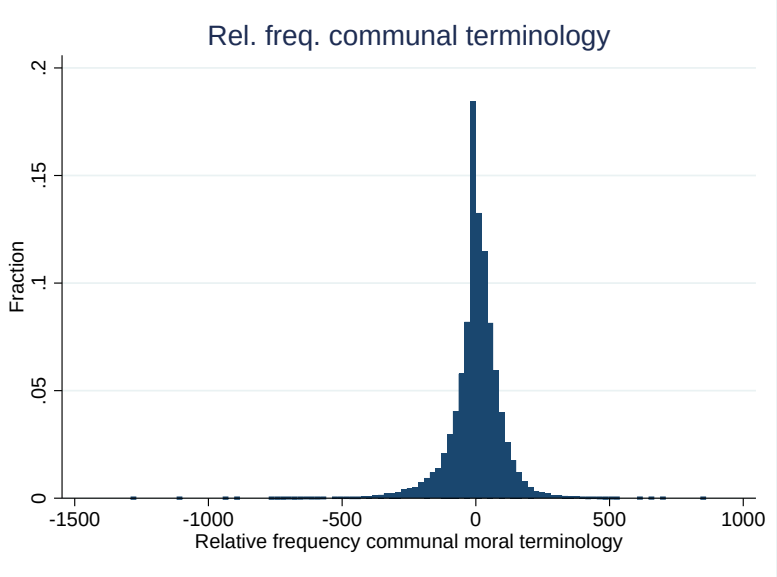

Figure 6: Distribution of relative frequency of communal moral terminology in campaign documents.

A.2 County Analysis

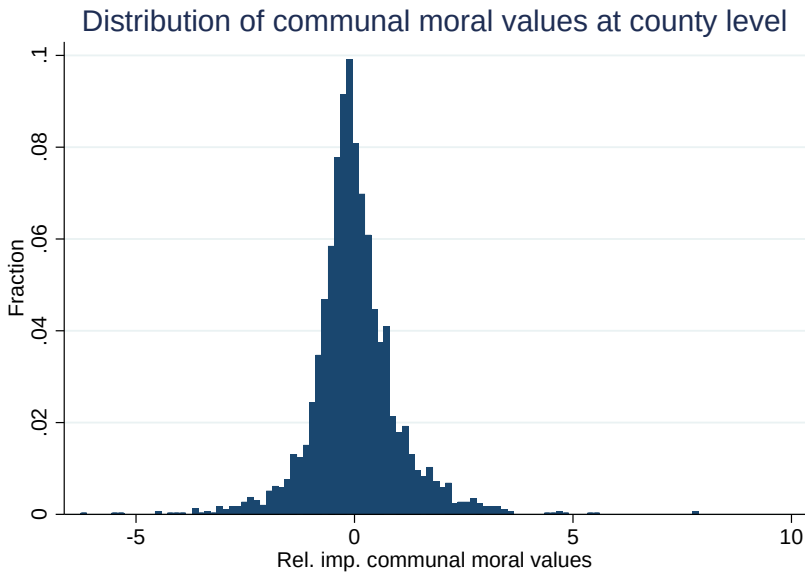

Figure 7: Distribution of relative importance of communal moral values at the county level.

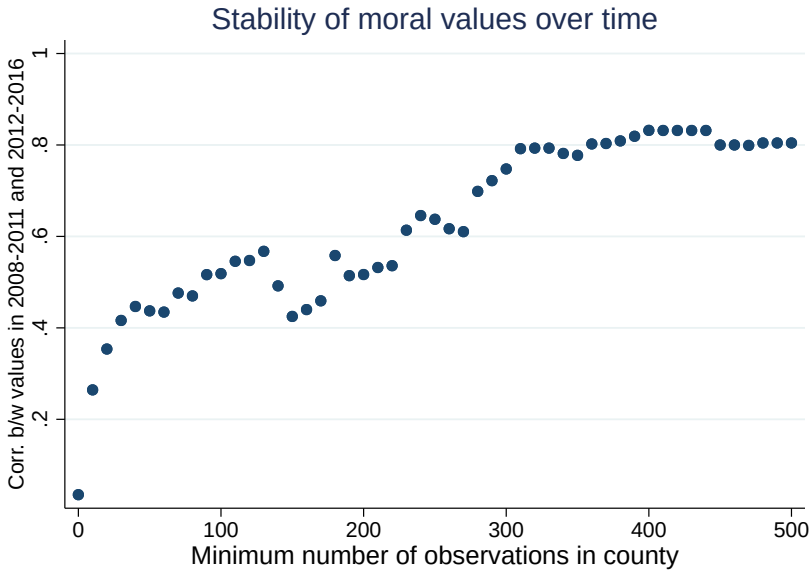

Figure 8: Stability of moral values at the county level. The figure depicts the correlation coefficient between values in 2008-2011 and 2012-2016 at the county level. The x-axis denotes the cutoff in terms of minimum number of respondents in a county used to compute the correlation coefficient.

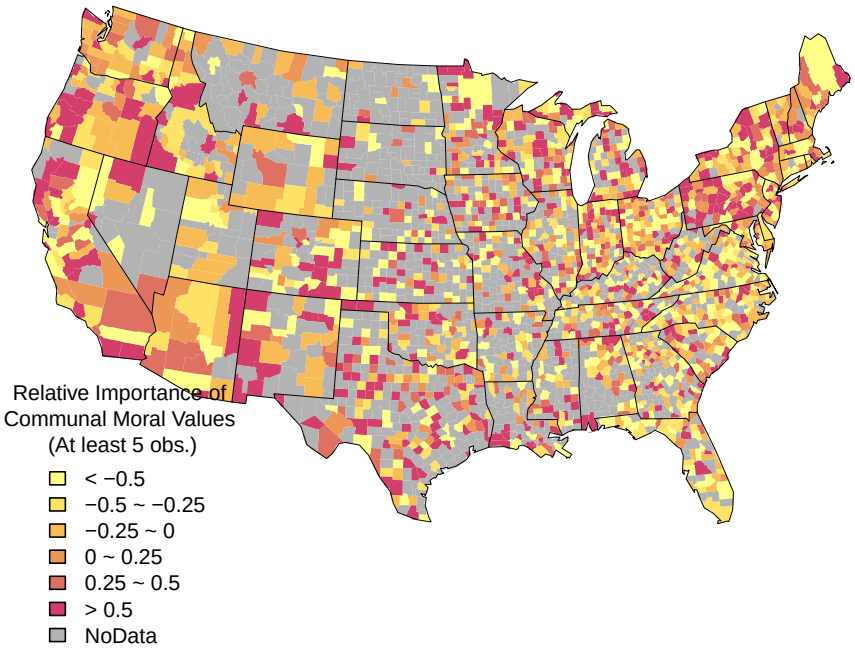

Figure 9: Relative importance of communal moral values at the county level, restricted to counties with at least five MFQ respondents.

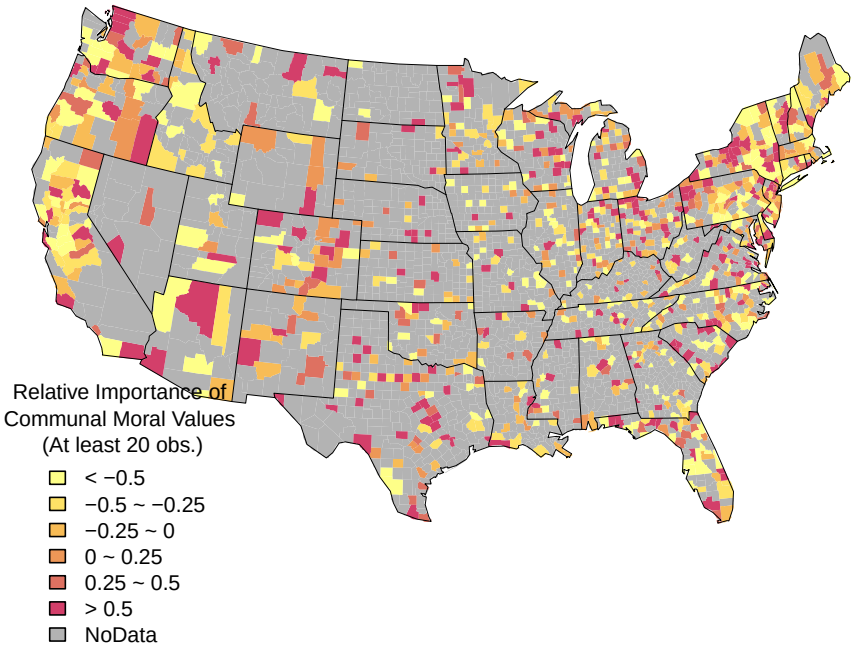

Figure 10: Relative importance of communal moral values at the county level, restricted to counties with at least 20 MFQ respondents.

B Additional Tables for Text Analysis

Table 7: Politicians and communal moral rhetoric: Exclude press releases

	Dependent variable:				
	Rel. frequency communal moral terminology				
	(1)	(2)	(3)	(4)	(5)
1 if Trump	12.2**	11.8**	12.1**	13.7**	11.6*
	(4.8)	(4.8)	(5.5)	(5.7)	(6.2)
Log [# words]				-2.4	-0.8
				(2.1)	(2.1)
Overall degree of morality				-17.3***	-17.3***
				(2.6)	(2.6)
Flesch reading ease score				-1.3	-1.0
				(2.8)	(2.8)
1 if Republican					6.2**
					(2.9)
1 if presidential nominee					-10.9***
					(2.9)
Document type FE	No	Yes	Yes	Yes	Yes
Document year FE	No	No	Yes	Yes	Yes
Document day of year FE	No	No	Yes	Yes	Yes
Observations	3867	3867	3867	3867	3867
R^2	0.00	0.00	0.15	0.17	0.18

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. The sample excludes all press releases. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Politicians and communal moral rhetoric: Robustness checks

	Dependent variable:								
	Rel. frequency communal moral terminology								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 if Trump	17.3***	20.1***	14.2***	17.7***	20.9***	11.9**	12.5***	15.1***	12.4***
	(4.0)	(4.5)	(4.7)	(4.1)	(4.5)	(4.8)	(3.9)	(4.4)	(4.6)
Frequency of purity / sanctity language	-0.0006	0.5	10.5**						
	(8.4)	(7.6)	(4.3)						
Log [# words]			-8.7***			-10.3***			-8.5***
			(1.0)			(1.2)			(1.0)
Overall degree of morality			-3.6			-3.9*			-3.7
			(2.3)			(2.3)			(2.3)
Flesch reading ease score			-6.0***			-6.4***			-5.9***
			(1.0)			(1.0)			(1.0)
1 if Republican			17.3***			16.9***			13.5***
			(1.9)			(1.9)			(2.0)
1 if presidential nominee			-6.9***			-7.1***			-6.3***
			(2.2)			(2.2)			(2.2)
Frequency of general moral language				-0.09	-0.2	0.5***			
				(0.2)	(0.1)	(0.2)			
Rel. frequency of right-wing partisan phrases							11.7***	10.6***	7.3***
							(1.2)	(1.3)	(1.3)
Document type FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Document year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Document day of year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	16698	16698	16698	16698	16698	16698	16698	16698	16698
R^2	0.02	0.08	0.10	0.02	0.08	0.10	0.03	0.08	0.10

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C Background and Additional Tables for Research Now Survey

C.1 Sample Characteristics

The population characteristics (except for the election data) are taken from the American Community Survey 2015.

Category	Study sample (%)	Population (%)
2016 election		
Trump	38.1	n/a
Clinton	40.8	n/a
Other	7.5	n/a
Didn't vote	11.8	n/a
Don't remember	1.7	n/a
2016 election if voted and remembers		
Trump	44.2	46.1
Clinton	47.2	48.2
Other	8.6	5.7
Gender		
Male	48.4	48.2
Female	51.6	51.8
Age		
28–29	5.1	4.1
30–34	12.3	10.7
35–39	12.0	10.1
40–49	23.2	21.5
50–59	18.8	21.9
≥60	28.6	31.7
Household income		
<10,000	6.5	7.2
10,000–14,999	5.2	5.3
15,000–24,999	9.9	10.6
25,000–34,999	11.2	10.1
35,000–49,999	13.1	13.4
50,000–74,999	18.6	17.8

75,000–99,999	12.7	12.1
100,000–149,999	13.3	13.1
150,000–199,999	5.4	5.1
≥200,000	4.1	5.3
Educational attainment		
Incomplete high school	11.6	13.3
High school graduate	27.4	27.8
Some college, no degree	20.0	21.1
Associate's degree	8.8	8.1
Bachelor's degree	19.8	18.5
Graduate or professional degree	12.5	11.2
Ethnicity		
White	66.7	62.3
African-American	15.8	17.1
Hispanic	10.8	12.3
American Indian	0.8	0.7
Asian	4.2	5.1
Other	1.8	2.5
Employment		
Full-time employed	58.7	63.7
Not employed full time	41.3	36.3
State		
Alabama	1.7	1.5
Alaska	0.1	0.2
Arizona	2.4	2.1
Arkansas	0.8	0.9
California	10.8	12.0
Colorado	1.5	1.7
Connecticut	1.1	1.2
Delaware	0.3	0.3
District of Columbia	0.3	0.1
Florida	7.6	6.5
Georgia	2.9	3.8
Hawaii	0.5	0.5
Idaho	0.5	0.5
Illinois	4.7	4.1

Indiana	2.3	2.0
Iowa	1.1	1.0
Kansas	0.7	0.9
Kentucky	1.8	1.4
Louisiana	1.6	1.4
Maine	0.5	0.5
Maryland	2.2	1.9
Massachusetts	1.8	2.2
Michigan	3.0	3.2
Minnesota	1.3	1.7
Mississippi	0.7	0.9
Missouri	2.3	1.9
Montana	0.1	0.3
Nebraska	0.7	0.6
Nevada	0.9	0.9
New Hampshire	0.4	0.4
New Jersey	3.0	2.9
New Mexico	0.4	0.7
New York	6.6	6.4
North Carolina	3.8	3.1
North Dakota	0.1	0.2
Ohio	4.2	3.7
Oklahoma	1.2	1.2
Oregon	1.1	1.3
Pennsylvania	4.9	4.2
Rhode Island	0.4	0.3
South Carolina	1.5	1.5
South Dakota	0.1	0.3
Tennessee	1.8	2.1
Texas	7.5	7.9
Utah	0.5	0.8
Vermont	0.1	0.2
Virginia	2.5	2.6
Washington	2.0	2.2
West Virginia	0.6	0.6
Wisconsin	1.5	1.8
Wyoming	0.0	0.2

City size		
>1 million	15.0	n/a
200,000–1 million	17.6	n/a
50,000–200,000	20.0	n/a
20,000–50,000, close to metro area	14.6	n/a
20,000–50,000, not close to metro area	5.8	n/a
3,000–20,000, close to metro area	9.3	n/a
3,000–20,000, not close to metro area	8.6	n/a
500–3,000, close to metro area	2.5	n/a
500–3,000, not close to metro area	3.7	n/a
<500	3.1	n/a

Regarding city size, the categories in the American Community Survey 2015 do not map perfectly into my variable. Here, 71.2% live in cities with population of 50,000 or more, 9.5% in cities of size 2,500–50,000 and 19.3% in cities with population less than 2,500. The data above suggest that "too many" respondents live in medium-sized cities. This, however, may well be an artifact given that respondents may not know their city size (or be unsure about the definition of their city) and hence provide answers that are "middle of the road".

C.2 Validation of Moral Communalism Index

Table 10: Moral values, attitudes and behaviors

	Dependent variable:											
	Δ [Local – global]											
	Support taxation/ redistr.			Donations			Volunteering			Money allocation task		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rel. imp. communal values	0.15***	0.12***	0.12***	0.081***	0.071***	0.070***	0.056***	0.051***	0.050**	0.27***	0.23***	0.24***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
1 if female		0.064*	0.042		0.033	0.011		0.032	0.041		0.023	0.017
		(0.03)	(0.04)		(0.03)	(0.05)		(0.03)	(0.04)		(0.04)	(0.05)
Income bracket		0.034***	0.039***		0.016*	0.0086		0.023***	0.019*		0.0018	-0.0064
		(0.01)	(0.01)		(0.01)	(0.01)		(0.01)	(0.01)		(0.01)	(0.01)
Education		0.036***	0.040**		0.043***	0.038**		0.012	-0.0046		-0.0017	0.0036
		(0.01)	(0.02)		(0.01)	(0.02)		(0.01)	(0.02)		(0.01)	(0.02)
Population density		-0.037**	-0.016		-0.037**	0.0040		-0.056***	-0.034		-0.090***	-0.083**
		(0.02)	(0.04)		(0.02)	(0.04)		(0.02)	(0.04)		(0.02)	(0.04)
1 if employed full-time		-0.0019	-0.020		-0.018	-0.029		-0.0068	-0.015		0.049	0.049
		(0.04)	(0.05)		(0.04)	(0.05)		(0.04)	(0.05)		(0.04)	(0.05)
State FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
County FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Age FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Ethnicity FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	3926	3864	3864	3872	3810	3810	3830	3769	3769	3527	3474	3474
R^2	0.02	0.10	0.37	0.01	0.07	0.37	0.00	0.05	0.35	0.07	0.17	0.42

Notes. OLS estimates, robust standard errors in parentheses. In columns (1)–(3), the dependent variable is the extent to which people prefer taxed and redistribution at the community level, relative to the federal level. In columns (4)–(6), the dependent variable is the difference in self-reported donations to local vs. more global entities over the past 12 months. Here, all observations with $x > |10,000|$ are excluded. In columns (7)–(9), the dependent variable is the difference in self-reported hours volunteered for local vs. more global entities over the past month. Here, all observations with $x > |100|$ are excluded. In columns (10)–(12), the dependent variable is the dollar amount (out of $99) that respondents allocated to the local firefighters as opposed to United Way Worldwide in a hypothetical money allocation task. Here, the analysis excludes all observations where the allocation did not add up to $x \in [98, 100]$. See Appendix K for a detailed description of each dependent variable. All dependent variables are expressed as z-scores. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.3 Individual-Level Correlates of Moral Values

Table 11: Moral values and individual characteristics

	Dependent variable:						
	Rel. importance communal moral values						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 if female	-0.23***					-0.26***	-0.23***
	(0.03)					(0.03)	(0.04)
Age	0.51***					0.33***	0.38**
	(0.11)					(0.11)	(0.15)
Income bracket		0.033***				0.039***	0.036***
		(0.01)				(0.01)	(0.01)
Education			-0.0060			-0.050***	-0.048***
			(0.01)			(0.01)	(0.02)
Population density				-0.12***		-0.12***	-0.099***
				(0.02)		(0.02)	(0.03)
Religiosity					0.21***	0.21***	0.21***
					(0.02)	(0.02)	(0.02)
State FE	No	No	No	No	No	Yes	No
County FE	No	No	No	No	No	No	Yes
Observations	4011	4011	4011	3949	3926	3864	3864
R^2	0.02	0.01	0.00	0.01	0.05	0.10	0.36

Notes. OLS estimates, robust standard errors in parentheses. Size of city includes ten categories, see Appendix K. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.4 Extensions and Robustness Checks

C.4.1 Pre-Registered Index of Relative Importance of Communal Moral Values

Table 12: Moral values and voting: Pre-registered index of moral values

	Dependent variable:														
	Votes									Turnout			Evaluation of Trump		
	Trump in election			Δ [Trump – Ave. GOP]			Trump in primaries			Δ [2016 – Ave.]			Loyalty vs. economy		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Rel. imp. communal values (pre-registered index)	21.2*** (0.60)	17.7*** (0.64)	16.5*** (0.84)	3.34*** (0.48)	3.13*** (0.56)	3.39*** (0.77)	10.7*** (1.22)	9.38*** (1.26)	9.43*** (2.03)	1.61*** (0.47)	1.09** (0.51)	1.43** (0.62)	0.14*** (0.02)	0.13*** (0.02)	0.11*** (0.02)
1 if female		-3.05** (1.52)	-2.35 (1.99)		1.25 (1.47)	0.84 (2.01)		-5.66** (2.41)	-1.23 (3.81)		-0.026 (1.12)	0.58 (1.43)		0.028 (0.04)	0.013 (0.05)
Income bracket		0.25 (0.39)	0.43 (0.52)		-0.58 (0.39)	-0.31 (0.52)		-0.34 (0.60)	-0.88 (1.02)		0.63** (0.30)	0.31 (0.39)		-0.040*** (0.01)	-0.036*** (0.01)
Education		-0.60 (0.53)	-0.90 (0.71)		-1.69*** (0.53)	-1.38** (0.69)		-5.58*** (0.83)	-5.21*** (1.35)		-0.74* (0.39)	-0.21 (0.50)		-0.053*** (0.01)	-0.062*** (0.02)
Population density		-5.13*** (0.83)	-5.49*** (1.61)		-0.60 (0.85)	-1.18 (1.74)		-2.31* (1.32)	-2.58 (3.04)		-0.75 (0.63)	-2.32* (1.19)		-0.027 (0.02)	-0.083** (0.04)
1 if employed full-time		0.38 (1.76)	0.78 (2.36)		0.21 (1.76)	-0.67 (2.31)		2.07 (2.84)	8.91* (4.76)		1.90 (1.43)	1.79 (1.70)		0.097** (0.04)	0.10* (0.06)
1 if voted for Trump														0.13*** (0.04)	0.083 (0.06)
State FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
County FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Age FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Ethnicity FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	3471	3422	3422	2973	2929	2929	1888	1852	1852	4011	3949	3949	4011	3422	3422
R^2	0.19	0.36	0.57	0.01	0.07	0.42	0.03	0.17	0.54	0.00	0.04	0.38	0.02	0.09	0.38

Notes. OLS estimates, robust standard errors in parentheses. The overall strength of moral concerns is defined as sum of the MFQ foundations harm / care, fairness / reciprocity, ingroup / loyalty, and authority / respect. Additional controls include age fixed effects, gender, income bracket, educational attainment, population density, and ethnicity fixed effects. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.4.2 Alternative Dependent Variables

Table 13: Moral values and voting: Individual-level evidence (robustness)

	Dependent variable:								
	Votes								
	Δ Vote [Trump – Ave. GOP (NV)]			Δ [Trump – Romney]			Δ [Trump – McCain]		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Rel. imp. communal values	3.27***	3.20***	3.28***	2.58***	2.56***	3.33***	3.66***	3.31***	3.68***
	(0.45)	(0.50)	(0.67)	(0.48)	(0.56)	(0.78)	(0.55)	(0.61)	(0.87)
1 if female		-0.47	-0.81		3.01**	3.06		-0.73	-0.91
		(1.30)	(1.70)		(1.51)	(2.01)		(1.64)	(2.20)
Income bracket		-0.55	-0.45		-0.37	0.088		-0.65	-0.59
		(0.34)	(0.45)		(0.39)	(0.51)		(0.44)	(0.58)
Education		-1.76***	-1.44**		-1.88***	-1.74**		-2.05***	-1.62**
		(0.48)	(0.62)		(0.54)	(0.70)		(0.59)	(0.79)
Population density		-0.28	-0.75		-0.56	-1.23		-0.79	-1.30
		(0.73)	(1.48)		(0.86)	(1.74)		(0.93)	(1.87)
1 if employed full-time		0.52	-0.23		0.56	0.45		-0.12	-0.46
		(1.50)	(1.97)		(1.78)	(2.29)		(2.02)	(2.61)
State FE	No	Yes	No	No	Yes	No	No	Yes	No
County FE	No	No	Yes	No	No	Yes	No	No	Yes
Age FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Ethnicity FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	3775	3718	3718	3150	3104	3104	3049	3004	3004
R^2	0.01	0.06	0.38	0.00	0.07	0.42	0.01	0.06	0.41

Notes. OLS estimates, robust standard errors in parentheses. In columns (1)–(3), the dependent variable is the difference in the propensity to vote for Trump and past Republicans. The difference to the main measure described in the main text is that here non-voters are coded as 50, rather than being excluded. In columns (4)–(9), the dependent variable is the difference between Trump and Romney or McCain, respectively, constructed as described in the main text (i.e., excluding people who did not vote). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.4.3 Additional Covariates

Table 14: Moral values and voting: Individual-level evidence (additional covariates)

	Dependent variable:					
	Δ Vote [Trump – Ave. GOP]					
	(1)	(2)	(3)	(4)	(5)	(6)
Rel. imp. communal values	2.63***	2.77***	2.76***	2.40***	2.71***	2.67***
	(0.60)	(0.60)	(0.62)	(0.58)	(0.59)	(0.59)
1 if female	2.00	2.19	2.15	2.40	2.08	2.20
	(1.53)	(1.53)	(1.53)	(1.53)	(1.53)	(1.53)
Income bracket	-0.51	-0.53	-0.53	-0.46	-0.52	-0.62
	(0.41)	(0.40)	(0.40)	(0.40)	(0.40)	(0.41)
Education	-1.61***	-1.69***	-1.67***	-1.67***	-1.67***	-1.69***
	(0.58)	(0.58)	(0.58)	(0.58)	(0.58)	(0.58)
Population density	-0.58	-0.59	-0.59	-0.67	-0.61	-0.57
	(0.88)	(0.88)	(0.88)	(0.88)	(0.88)	(0.88)
1 if employed full-time	-0.38	-0.41	-0.39	-0.42	-0.40	-0.69
	(2.00)	(2.00)	(2.00)	(1.99)	(2.00)	(2.02)
Overall strength of moral concerns	1.12					
	(0.75)					
General trust		0.37				
		(0.73)				
Trust in mainstream media			0.042			
			(0.73)			
Trust in politicians				3.11***		
				(0.77)		
Altruism					0.94	
					(0.78)	
Personal job prospects						0.69
						(0.55)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes	Yes
Ethnicity FE	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FE	Yes	Yes	Yes	Yes	Yes	Yes
Religious denomination FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2860	2860	2860	2860	2860	2860
R^2	0.08	0.08	0.08	0.08	0.08	0.08

Notes. OLS estimates, robust standard errors in parentheses. Occupation fixed effects include eleven categories, see Appendix K. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 15: Moral values and voting: Individual-level evidence (additional covariates)

	Dependent variable:					
	Vote for Trump in primaries					
	(1)	(2)	(3)	(4)	(5)	(6)
Rel. imp. communal values	7.73***	7.55***	7.45***	7.06***	7.58***	7.37***
	(1.40)	(1.32)	(1.34)	(1.29)	(1.32)	(1.31)
1 if female	-6.74***	-5.62**	-5.64**	-5.50**	-5.65**	-5.49**
	(2.51)	(2.53)	(2.53)	(2.50)	(2.53)	(2.52)
Income bracket	-0.34	-0.45	-0.47	-0.28	-0.45	-0.70
	(0.60)	(0.61)	(0.61)	(0.60)	(0.61)	(0.62)
Education	-5.15***	-5.47***	-5.48***	-5.31***	-5.49***	-5.50***
	(0.88)	(0.89)	(0.88)	(0.88)	(0.89)	(0.88)
Population density	-1.94	-2.24	-2.20	-2.55*	-2.28*	-2.20
	(1.37)	(1.38)	(1.38)	(1.37)	(1.38)	(1.38)
1 if employed full-time	0.97	0.87	0.87	0.55	0.81	0.11
	(3.18)	(3.22)	(3.22)	(3.18)	(3.22)	(3.22)
Overall strength of moral concerns	7.56***					
	(1.19)					
General trust		-0.11				
		(1.17)				
Trust in mainstream media			-0.51			
			(1.19)			
Trust in politicians				7.11***		
				(1.10)		
Altruism					0.97	
					(1.12)	
Personal job prospects						2.09**
						(0.86)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes	Yes
Ethnicity FE	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FE	Yes	Yes	Yes	Yes	Yes	Yes
Religious denomination FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1817	1817	1817	1817	1817	1817
R^2	0.20	0.18	0.18	0.20	0.18	0.19

Notes. OLS estimates, robust standard errors in parentheses. Occupation fixed effects include eleven categories, see Appendix K. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.4.4 Alternative Measures of Moral Values

Table 16: Moral values and voting: Individual-level evidence (alternative measures of moral values)

	Dependent variable:											
	Δ Vote [Trump – Ave GOP]						Vote for Trump in primaries					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rel. imp. communal values (uniform weights)	3.27***	3.06***					10.1***	8.74***				
	(0.48)	(0.56)					(1.23)	(1.27)				
Rel. imp. communal values (incl. purity)			3.17***	2.95***					9.19***	8.17***		
			(0.45)	(0.52)					(1.24)	(1.25)		
Rel. imp. communal values (pca survey questions)					2.59***	2.12***					4.70***	3.98***
					(0.65)	(0.70)					(1.28)	(1.26)
State FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Age FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Ethnicity FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Individual characteristics	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	2973	2929	2973	2929	2973	2929	1888	1852	1888	1852	1888	1852
R^2	0.01	0.07	0.01	0.07	0.00	0.06	0.03	0.16	0.02	0.16	0.01	0.15

Notes. OLS estimates, robust standard errors in parentheses. In columns (1)–(2) and (7)–(8), the moral communalism index is constructed as (unweighted) in-group / loyalty plus authority / respect minus harm / care minus fairness / reciprocity. In columns (3)–(4) and (9)–(10), it is constructed as first principal component of harm / care, fairness / reciprocity, in-group / loyalty, authority / respect, and purity/ sanctity. In clumns (5)–(6) and (11)–(12), the moral communalism index is constructed as first principal component of the survey items underlying the harm / care, fairness / reciprocity, in-group / loyalty, and authority / respect dimensions. Before the factor analysis is run, each survey item is normalized by dividing it through the sum of responses to all survey items. Individual characteristics include gender, income bracket, educational attainment, and an indicator for whether the respondent is employed full-time. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.4.5 Separate MFQ Survey Items

Table 17: Relationship between Trump voting and separate MFQ items: Harm / care

	Dependent variable:											
	Election: Δ Vote [Trump – Ave. GOP]						Vote for Trump in primaries					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Harm / care: q. 1	-1.92***						-3.18***					
	(0.65)						(1.19)					
Harm / care: q. 7		-1.61**						-4.73***				
		(0.65)						(1.25)				
Harm / care: q. 12			-2.34***						-5.92***			
			(0.65)						(1.21)			
Harm / care: q. 17				-1.34**						-4.20***		
				(0.66)						(1.09)		
Harm / care: q. 23					-0.70						2.86**	
					(0.59)						(1.19)	
Harm / care: q. 28						1.19*						1.35
						(0.68)						(1.19)
Observations	2973	2973	2973	2973	2973	2973	1888	1888	1888	1888	1888	1888
R^2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00

Notes. OLS estimates, robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. See Appendix H for the survey questions.

Table 18: Relationship between Trump voting and separate MFQ items: fairness / reciprocity

	Dependent variable:											
	Election: Δ Vote [Trump – Ave. GOP]						Vote for Trump in primaries					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Fairness / recip.: q. 2	-2.13***						-6.85***					
	(0.64)						(1.18)					
Fairness / recip.: q. 8		-3.00***						-3.17***				
		(0.67)						(1.21)				
Fairness / recip.: q. 13			-2.08*						-2.16			
			(1.19)						(2.33)			
Fairness / recip.: q. 18				-1.25*						-2.92***		
				(0.65)						(1.07)		
Fairness / recip.: q. 24					-0.60						-2.16**	
					(0.56)						(1.08)	
Fairness / recip.: q. 29						1.10						-0.86
						(0.78)						(1.28)
Observations	2973	2973	2973	2973	2973	2973	1888	1888	1888	1888	1888	1888
R^2	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00

Notes. OLS estimates, robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. See Appendix H for the survey questions.

Table 19: Relationship between Trump voting and separate MFQ items: In-group / loyalty

	Dependent variable:											
	Election: Δ Vote [Trump – Ave. GOP]						Vote for Trump in primaries					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
In-group / loyalty: q. 3	3.15***						9.41***					
	(0.60)						(1.22)					
In-group / loyalty: q. 9		-0.20						2.01*				
		(0.65)						(1.20)				
In-group / loyalty: q. 14			1.13*						2.57**			
			(0.64)						(1.21)			
In-group / loyalty: q. 19				0.94						4.48***		
				(0.77)						(1.55)		
In-group / loyalty: q. 25					1.20*						2.20*	
					(0.66)						(1.22)	
In-group / loyalty: q. 30						1.92***						1.80
						(0.61)						(1.24)
Observations	2973	2973	2973	2973	2973	2973	1888	1888	1888	1888	1888	1888
R^2	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00

Notes. OLS estimates, robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. See Appendix H for the survey questions.

Table 20: Relationship between Trump voting and separate MFQ items: Authority / respect

	Dependent variable:											
	Election: Δ Vote [Trump – Ave. GOP]						Vote for Trump in primaries					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Authority / respect: q. 4	0.89						0.89					
	(0.66)						(0.66)					
Authority / respect: q. 10		2.85***						2.85***				
		(0.68)						(0.68)				
Authority / respect: q. 15			-2.14***						-2.14***			
			(0.70)						(0.70)			
Authority / respect: q. 20				-1.32**						-1.32**		
				(0.61)						(0.61)		
Authority / respect: q. 26					2.69***						2.69***	
					(0.62)						(0.62)	
Authority / respect: q. 31						1.29**						1.29**
						(0.64)						(0.64)
Observations	2973	2973	2973	2973	2973	2973	2973	2973	2973	2973	2973	2973
R^2	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00

Notes. OLS estimates, robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. See Appendix H for the survey questions.

C.5 Reclassification Exercises

Table 21: Moral values and voting: Individual-level evidence (reclassification exercises)

	Dependent variable: Δ Vote [Trump – Ave GOP]					
	Reclassify everyone as Trump voter who stated that:					
	Didn't vote/ don't remember			Voted for third candidate		
	(1)	(2)	(3)	(4)	(5)	(6)
Rel. imp. communal values	1.71***	2.04***	2.46***	2.55***	2.24***	2.66***
	(0.55)	(0.60)	(0.85)	(0.65)	(0.70)	(0.93)
1 if female		2.10	1.45		-0.66	0.021
		(1.55)	(2.10)		(1.53)	(2.11)
Income bracket		-1.16***	-0.76		-1.21***	-1.34**
		(0.41)	(0.55)		(0.41)	(0.56)
Education		-2.09***	-2.12***		-0.87	-0.56
		(0.55)	(0.75)		(0.54)	(0.74)
Population density		-0.77	-0.76		-1.08	-0.77
		(0.88)	(1.80)		(0.88)	(1.76)
1 if employed full-time		-2.65	-3.81		3.26*	2.10
		(1.90)	(2.50)		(1.88)	(2.50)
State FE	No	Yes	No	No	Yes	No
County FE	No	No	Yes	No	No	Yes
Age FE	No	Yes	Yes	No	Yes	Yes
Ethnicity FE	No	Yes	Yes	No	Yes	Yes
Observations	3148	3100	3100	2973	2929	2929
R^2	0.00	0.07	0.40	0.00	0.07	0.40

Notes. OLS estimates, robust standard errors in parentheses. In columns (1)–(3), the dependent variable is constructed by treating all respondents who stated that they did not vote or don't remember who they voted for, as if they had voted for Trump. In columns (4)–(6), I likewise classify all respondents who stated that they voted for a third candidate as if they had voted for Trump. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

D Additional Tables for County-Level Analysis

D.1 Robustness: Difference Trump and 2008–2012

Table 22: Moral values and the presidential election: Robustness

	Dependent variable:			
	Vote share			
	Δ [Trump – Ave. GOOP (2008–2012)]			
	(1)	(2)	(3)	(4)
Rel. imp. communal moral values	0.025***	0.018***	0.015***	0.018***
	(0.00)	(0.00)	(0.00)	(0.01)
Log [Median HH Income]		-0.020***	-0.013***	-0.011**
		(0.00)	(0.00)	(0.00)
Unemployment rate		0.00019	0.0075**	0.0080
		(0.00)	(0.00)	(0.01)
% employed in manufacturing		0.029***	0.029***	0.036***
		(0.00)	(0.00)	(0.00)
Longitude		-0.022*	0.10***	0.13
		(0.01)	(0.04)	(0.13)
Latitude		0.017***	-0.018	-0.00052
		(0.01)	(0.02)	(0.05)
Ave. precipitation		0.0017	0.016**	0.022
		(0.00)	(0.01)	(0.01)
State FE	Yes	Yes	No	No
Commuting zone FE	No	No	Yes	No
CBSA FE	No	No	No	Yes
Observations	2891	2875	2875	1762
R^2	0.49	0.69	0.84	0.87

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. The dependent variable is the difference in vote shares between Trump and the average GOP vote share in 2008–2012. See columns (2) and (3) of Table 5 for a complete list of the economic and geographic covariates. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

D.2 Robustness: Additional Covariates

Table 23 presents an array of robustness checks that control for further county-level characteristics. All of these regressions include the baseline set of economic and geographic covariates from Table 5. Column (1) investigates the relationship between Trump votes and recent county-level economic changes. The set of covariates now includes the difference in median household income and unemployment rates between

2012 and 2015 (2016 is not available yet). Moreover, I control for the change in the fraction of people who are employed in manufacturing between 2015 and 1970. In addition, column (1) adds a control for local inequality.

Column (2) introduces a set of population characteristics, including the fraction of the population that has at most a high school degree (but never attended college), the fraction of the population that is religious, the local racism index (frequency of googling "n*") developed by Stephens-Davidowitz (2013), and a social capital index. Appendix K describes these covariates and their sources in detail.

Finally, in column (3), the analysis adds a county's log population density as a covariate. While the strong urban-rural divide in support for Trump is well-known and also shows up in the regression, it is unknown why such a divide exists. While some commentators point to the fact that population density is correlated with income, education, and job prospects, the same is true of the structure of moral values. Indeed, a long literature in sociology, anthropology, and cultural psychology has argued that rural or agricultural structures tend to bring about a "clannish" psychology, including communal moral values (e.g., Shweder, 1991; Fei et al., 1992; Talhelm et al., 2014; Enke, 2017). Thus, many of the covariates in columns (2) and (3) are likely to be "bad controls" in the sense that moral values might plausibly mediate the reduced-form relationship between Trump voting and, say, religiosity, or population density. Still, in all specifications, communal values are positively correlated with the difference between Trump and past Republicans. Columns (4) through (6) extend this analysis to the GOP primaries. Again, the relative prevalence of communal moral values in a county is consistently related to Trump's vote share.

Table 23: Moral values and the presidential election: Robustness

	Dependent variable:					
	Δ [Trump – Avg. GOP]			Trump in primaries		
	(1)	(2)	(3)	(4)	(5)	(6)
Rel. imp. communal moral values	2.22***	0.96***	1.02**	1.88***	0.94*	1.30**
	(0.43)	(0.31)	(0.41)	(0.52)	(0.49)	(0.63)
Δ Log [Income p/c]	1.01**	0.89***		-0.45	-0.51	
	(0.41)	(0.33)		(0.45)	(0.45)	
Δ Unemployment rate	-0.56**	0.011		-1.81***	-1.02**	
	(0.26)	(0.23)		(0.48)	(0.44)	
Δ % employed in manufacturing (2015-1970)	0.55**	0.62***		-0.31	0.14	
	(0.24)	(0.20)		(0.39)	(0.36)	
Gini coefficient	-1.13***	-0.70***		-2.42***	-1.67***	
	(0.30)	(0.25)		(0.21)	(0.24)	
% high school graduate or less		4.64***			4.24***	
		(0.30)			(0.54)	
Fraction religious		-0.28			-0.020	
		(0.25)			(0.50)	
Racism index		1.71***			1.89***	
		(0.29)			(0.48)	
Social capital index		1.38***			-1.00**	
		(0.35)			(0.40)	
Log [Pop. density]			-2.23***			-2.60***
			(0.29)			(0.52)
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Economic controls	Yes	Yes	Yes	Yes	Yes	Yes
Geographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2864	2850	2875	2664	2650	2673
R^2	0.67	0.77	0.70	0.93	0.94	0.91

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. See columns (2) and (3) of Table 5 for a complete list of the economic and geographic covariates. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

D.3 Robustness: Sample Selection

Table 24: Robustness against sample selection

	Dependent variable:											
	Vote share								Δ Turnout [2016 – Ave. ('00 – '12)]		Δ Turnout [2016 – Ave. ('08 – '12)]	
	Δ [Trump – Ave. GOP]				Trump in primaries				Election	GOP prim.	Election	GOP prim.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rel. imp. communal moral values (residual)	3.17*** (0.49)	2.45*** (0.41)	1.91*** (0.34)	2.10** (0.86)	3.50*** (0.71)	2.94*** (0.56)	1.84*** (0.59)	3.64* (2.14)	0.029 (0.13)	1.56*** (0.19)	0.37*** (0.13)	1.34*** (0.16)
Log [Median HH Income]		-2.30*** (0.25)	-1.11*** (0.34)	-0.74 (0.57)		-0.79 (0.54)	0.29 (0.88)	2.16 (1.41)	-0.11 (0.10)	-0.11 (0.12)	-0.24*** (0.09)	-0.031 (0.11)
Unemployment rate		-0.24 (0.36)	0.98** (0.48)	1.26 (0.95)		2.68*** (0.60)	2.11* (1.22)	4.22 (2.83)	-0.25 (0.16)	-1.06*** (0.20)	-0.70*** (0.16)	-0.99*** (0.18)
% employed in manufacturing		3.52*** (0.31)	3.54*** (0.28)	4.54*** (0.49)		3.02*** (0.51)	3.74*** (0.56)	5.98*** (1.71)	0.35*** (0.11)	1.48*** (0.15)	0.56*** (0.10)	1.28*** (0.13)
Longitude		-1.92 (1.43)	11.3** (4.51)	17.9 (16.50)		4.58** (2.30)	31.3*** (9.26)	15.1 (25.31)	0.67 (0.64)	0.34 (0.73)	0.12 (0.67)	0.23 (0.65)
Latitude		1.64** (0.76)	-2.37 (2.63)	-0.17 (6.23)		-2.07 (1.68)	-4.68 (5.66)	-4.56 (15.26)	-0.64** (0.29)	0.75 (0.47)	-0.60** (0.26)	0.77** (0.33)
Ave. precipitation		0.54 (0.35)	2.73*** (1.03)	3.93* (2.14)		-0.11 (0.61)	-0.12 (1.70)	1.74 (2.71)	-0.21 (0.16)	-0.50** (0.21)	-0.13 (0.12)	-0.49*** (0.17)
State FE	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Commuting zone FE	No	No	Yes	No	No	No	Yes	No	No	No	No	No
CBSA FE	No	No	No	Yes	No	No	No	Yes	No	No	No	No
Observations	2874	2858	2858	1758	2673	2657	2657	1666	2858	2404	2858	2579
R^2	0.45	0.63	0.80	0.83	0.88	0.90	0.91	0.91	0.65	0.83	0.57	0.82

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. Residual relative importance of communal values at the county level is computed as average across respondents after the following covariates have been partialed out of individual level values: age fixed effects, gender, education fixed effects, and ethnicity fixed effects. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E Additional Analyses for General Pattern 2008 – 2016

E.1 Additional Figures for Text Analysis

E.1.1 2016 Election

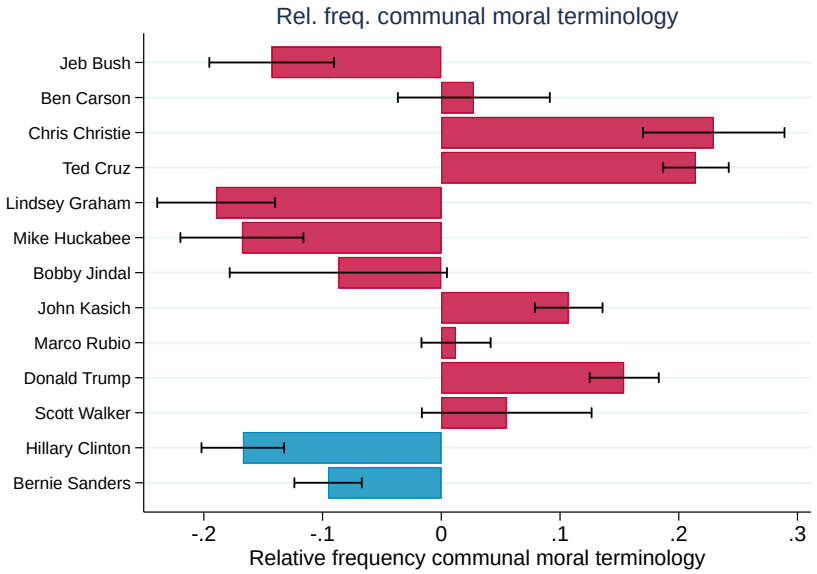

Figure 11: Relative frequency of communal moral terminology in the 2016 election. The bar charts depict averages across documents, along with standard error bars. The data are normalized into z-scores and conditional on document type FE, year FE, month of year FE, day of month FE, overall morality, reading ease and log (# of words). As in the regressions, each document is weighted by square root of the total number of non-stop words. The sample is restricted to candidates with at least 75 observations.

E.1.2 2012 Election

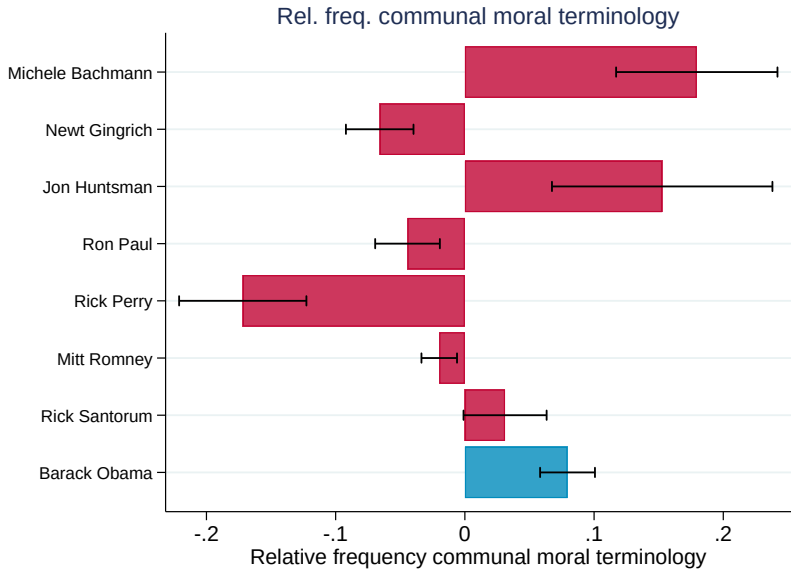

Figure 12: Relative frequency of communal moral terminology in the 2012 election. The bar charts depict averages across documents, along with standard error bars. The data are normalized into z-scores and conditional on document type FE, year FE, month of year FE, day of month FE, overall morality, reading ease and log (# of words). As in the regressions, each document is weighted by the square root of the total number of non-stop words. The sample is restricted to candidates with at least 75 observations.

E.1.3 2008 Election

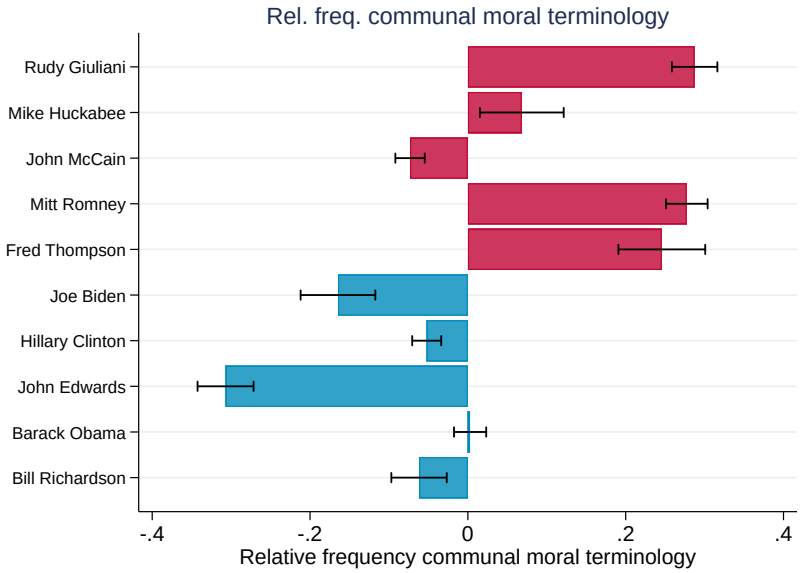

Figure 13: Relative frequency of communal moral terminology in the 2008 election. The bar charts depict averages across documents, along with standard error bars. The data are normalized into z-scores and conditional on document type FE, year FE, month of year FE, day of month FE, overall morality, reading ease and log (# of words). As in the regressions, each document is weighted by the square root of the total number of non-stop words. The sample is restricted to candidates with at least 75 observations.

E.2 Additional Figures on Relationship Between Supply- and Demand-Side

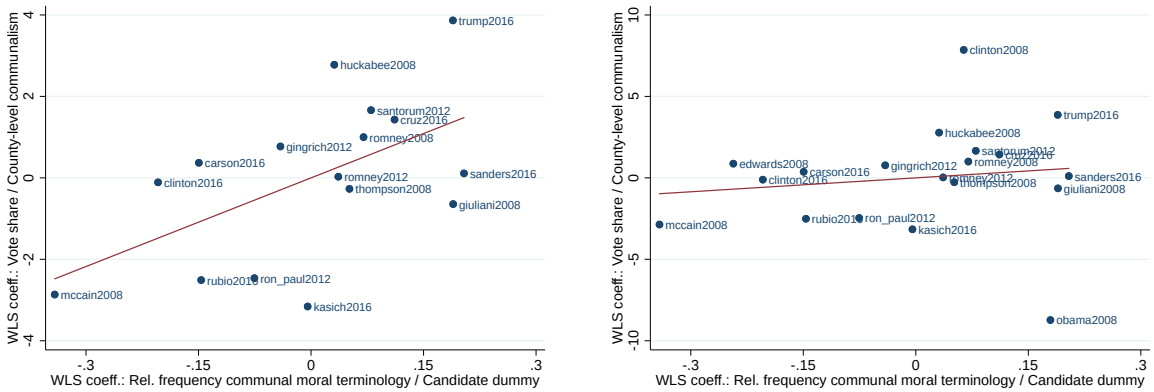

Figure 14: Relationship between demand- and supply-side analyses. This figure plots two partial correlations against each other. The x-axis denotes the WLS coefficient of a regression of the relative frequency of communal terminology on a candidate dummy (conditional on the controls in column (4) of Table 2), where the set of candidates in any given regression is restricted to the contenders in the respective primaries. The y-axis depicts the WLS coefficient of a regression of county-level voteshares of the respective candidate on the county-level relative prevalence of communal moral values (conditional on state fixed effects). The regression coefficients on both axes are conditional on election fixed effects. The sample includes all candidates for which I have access to at least 100 campaign documents and who received at least 1% of the popular vote in the respective Primaries. The left panel excludes the 2008 Democratic contenders (Clinton, Edwards and Obama).

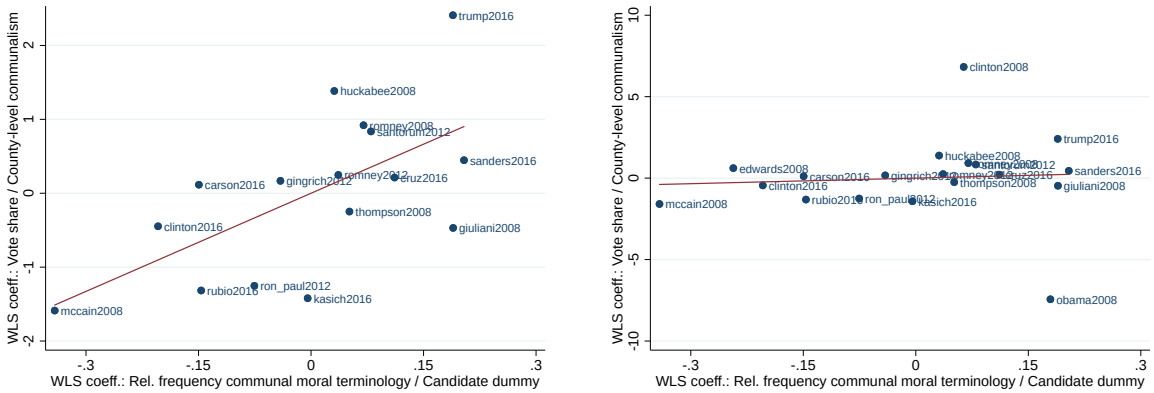

Figure 15: Relationship between demand- and supply-side analyses. This figure plots two partial correlations against each other. The x-axis denotes the WLS coefficient of a regression of the relative frequency of communal terminology on a candidate dummy (conditional on the controls in column (4) of Table 2), where the set of candidates in any given regression is restricted to the contenders in the respective primaries. The y-axis depicts the WLS coefficient of a regression of county-level voteshares of the respective candidate on the county-level relative prevalence of communal moral values (conditional on commuting zone fixed effects). The regression coefficients on both axes are conditional on election fixed effects. The sample includes all candidates for which I have access to at least 100 campaign documents and who received at least 1% of the popular vote in the respective Primaries. The left panel excludes the 2008 Democratic contenders (Clinton, Edwards, and Obama).

E.3 Additional Tables

E.3.1 Text Analysis

Table 25: Politicians and communal moral rhetoric: 2008 Republicans

	Dependent variable: Rel. frequency communal moral terminology									
	Sample: 2008 Republicans									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1 if Giuliani	0.11**	0.14***								
	(0.05)	(0.05)								
1 if Huckabee			-0.037	-0.025						
			(0.08)	(0.08)						
1 if McCain					-0.37***	-0.41***				
					(0.07)	(0.08)				
1 if Romney							0.026	0.017		
							(0.05)	(0.05)		
1 if Thompson									0.037	-0.0039
									(0.08)	(0.08)
Document type and time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Language controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	3038	3038	3038	3038	3038	3038	3038	3038	3038	3038
R^2	0.28	0.32	0.28	0.31	0.29	0.32	0.28	0.31	0.28	0.31

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 26: Politicians and communal moral rhetoric: 2012 Republicans

	Dependent variable:							
	Rel. frequency communal moral terminology							
	Sample: 2012 Republicans							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 if Gingrich	-0.050	-0.036						
	(0.04)	(0.04)						
1 if Romney			0.017	0.028				
			(0.03)	(0.03)				
1 if Ron Paul					-0.051	-0.068*		
					(0.04)	(0.04)		
1 if Santorum							0.097**	0.079**
							(0.04)	(0.04)
Document type and time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Language controls	No	Yes	No	Yes	No	Yes	No	Yes
Observations	3664	3664	3664	3664	3664	3664	3664	3664
R^2	0.19	0.20	0.19	0.20	0.19	0.20	0.19	0.20

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 27: Politicians and communal moral rhetoric: 2016 Republicans

	Dependent variable:									
	Rel. frequency communal moral terminology									
	Sample: 2016 Republicans									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1 if Carson	-0.10	-0.11								
	(0.09)	(0.09)								
1 if Cruz			0.092**	0.043						
			(0.04)	(0.05)						
1 if Kasich					0.013	0.037				
					(0.04)	(0.05)				
1 if Trump							0.15**	0.21***		
							(0.07)	(0.07)		
1 if Rubio									-0.16***	-0.15***
									(0.05)	(0.05)
Document type and time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Language controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	2366	2366	2366	2366	2366	2366	2366	2366	2366	2366
R^2	0.27	0.28	0.27	0.28	0.27	0.28	0.27	0.29	0.27	0.29

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 28: Politicians and communal moral rhetoric: 2008 and 2016 Democrats

	Dependent variable:									
	Rel. frequency communal moral terminology									
	Sample									
	2008 Democrats						Democrats 2016			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1 if Clinton	0.11***	0.054					-0.24***	-0.23***		
	(0.04)	(0.04)					(0.08)	(0.07)		
1 if Edwards			-0.36***	-0.30***						
			(0.05)	(0.05)						
1 if Obama					0.13***	0.16***				
					(0.04)	(0.04)				
1 if Sanders									0.24***	0.23***
									(0.08)	(0.07)
Document type and time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Language controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Observations	3336	3336	3336	3336	3336	3336	1414	1414	1414	1414
R^2	0.27	0.32	0.28	0.33	0.27	0.32	0.32	0.33	0.32	0.33

Notes. WLS estimates, robust standard errors in parentheses. The dependent variable is the relative frequency of communal moral terminology, computed using relative word frequencies. Each document is weighted by the square root of the total number of non-stop words. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

E.3.2 County-Level Analysis

Table 29: County-level analysis: Vote share in 2008 GOP primaries

	Dependent variable:														
	Vote share in 2008 Republican primaries:														
	Giuliani			Huckabee			McCain			Romney			Thompson		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Rel. imp. communal moral values	-0.26*	-0.18*	-0.45	3.16***	1.67***	2.29***	-2.48***	-1.30**	-2.44*	1.38***	1.21**	2.49**	0.11	0.042	-0.069
	(0.14)	(0.10)	(0.34)	(0.57)	(0.39)	(0.81)	(0.56)	(0.58)	(1.25)	(0.50)	(0.51)	(1.16)	(0.09)	(0.07)	(0.13)
State FE	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No
Commuting zone FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
CBSA FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	2077	2077	1316	2484	2484	1592	2728	2728	1713	2405	2405	1527	2010	2010	1301
R^2	0.87	0.97	0.96	0.82	0.92	0.93	0.92	0.93	0.94	0.93	0.96	0.96	0.83	0.94	0.96

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. See columns (2) and (3) of Table 5 for a complete list of the economic and geographic covariates. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 30: County-level analysis: Vote share in 2012 GOP primaries

	Dependent variable:											
	Vote share in 2012 Republican primaries:											
	Gingrich			Romney			Ron Paul			Santorum		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Rel. imp. communal moral values	0.77***	0.29	-0.74	0.031	0.37	1.72	-2.46***	-1.13**	-1.51	1.66***	0.96**	1.26
	(0.21)	(0.30)	(0.94)	(0.60)	(0.65)	(1.80)	(0.45)	(0.46)	(1.05)	(0.41)	(0.39)	(0.87)
State FE	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No
Commuting zone FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
CBSA FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	2601	2601	1617	2838	2838	1760	2838	2838	1760	2707	2707	1672
R^2	0.93	0.95	0.95	0.90	0.94	0.94	0.83	0.82	0.84	0.90	0.94	0.96

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. See columns (2) and (3) of Table 5 for a complete list of the economic and geographic covariates. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 31: County-level analysis: Vote share in 2016 GOP primaries

	Dependent variable:														
	Vote share in 2016 Republican primaries:														
	Carson			Cruz			Kasich			Rubio			Trump		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Rel. imp. communal moral values	0.29***	0.092	0.18	1.35**	0.19	-0.60	-3.24***	-1.44*	-3.79	-2.59***	-1.34*	-1.93	3.79***	2.39**	5.77**
	(0.08)	(0.07)	(0.17)	(0.61)	(0.46)	(1.32)	(0.73)	(0.86)	(2.40)	(0.49)	(0.73)	(1.76)	(0.75)	(0.93)	(2.40)
State FE	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No
Commuting zone FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
CBSA FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	2487	2487	1578	2689	2689	1684	2689	2689	1684	2376	2376	1455	2689	2689	1684
R^2	0.86	0.90	0.91	0.89	0.94	0.96	0.78	0.83	0.82	0.85	0.80	0.80	0.88	0.90	0.90

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. See columns (2) and (3) of Table 5 for a complete list of the economic and geographic covariates. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 32: County-level analysis: Vote share in 2008 and 2016 Democratic primaries

	Dependent variable:														
	Vote share in primaries of Democrats in:														
	2008									2016					
	Clinton			Edwards			Obama			Clinton			Sanders		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Rel. imp. communal moral values	7.82***	6.87***	10.6***	0.84***	0.66***	0.91***	-8.76***	-7.39***	-11.7***	-0.47	-0.63	-2.88**	-0.25	0.26	2.53**
	(0.91)	(0.84)	(1.68)	(0.14)	(0.17)	(0.29)	(0.96)	(0.89)	(1.77)	(0.87)	(0.59)	(1.29)	(0.88)	(0.60)	(1.27)
State FE	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No
Commuting zone FE	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No
CBSA FE	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	No	Yes
Observations	2762	2762	1728	2184	2184	1385	2680	2680	1677	2664	2664	1679	2664	2664	1679
R^2	0.71	0.84	0.88	0.87	0.92	0.94	0.63	0.80	0.84	0.69	0.87	0.90	0.70	0.87	0.90

Notes. County-level WLS estimates, robust standard errors in parentheses. Each county is weighted by the square root of the number of respondents. See columns (2) and (3) of Table 5 for a complete list of the economic and geographic covariates. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

F Moral Threat Analysis

Table 33: Moral threat in political rhetoric

	Dependent variable:								
	Rel. frequency of moral threat terminology								
				Sub-samples					
	Baseline			President. nominee		GOP		2016	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 if Trump	0.28***	0.28***	0.16***	0.26***	0.33***	0.22***	0.27***	0.27***	0.15***
	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
Log [# words]		-0.014	-0.0077		0.024*		0.020*		0.013
		(0.01)	(0.01)		(0.01)		(0.01)		(0.02)
Overall degree of morality		-0.55***	-0.55***		-0.55***		-0.47***		-0.48***
		(0.02)	(0.02)		(0.02)		(0.02)		(0.03)
Flesch reading ease score		0.059***	0.057***		0.052***		0.071***		0.097***
		(0.01)	(0.01)		(0.01)		(0.01)		(0.01)
1 if Republican			0.17***		0.053**				0.16***
			(0.02)		(0.02)				(0.03)
1 if presidential nominee			0.031*				-0.029*		
			(0.02)				(0.02)		
Document type FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Document year FE	No	Yes	Yes	No	No	No	No	Yes	Yes
Document day of year FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	16698	16698	16698	5372	5372	10822	10822	4983	4983
R^2	0.00	0.36	0.37	0.17	0.45	0.08	0.31	0.17	0.39

Notes. WLS estimates, robust standard errors in parentheses. In columns (4)–(9), the sample is restricted to presidential nominees, Republican candidates, and 2016 candidates, respectively. Each document is weighted by the square root of the total number of non-stop words. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

G Derivation of Regression Weights for the Demand and Supply Side Analyses

Consider the following population models for the county (demand side) and text (supply side) analyses:

Demand Side: Consider person i in county c. For a given outcome, y_{ic} (e.g., which candidate person i voted for), and vector of covariates, x_{ic} (e.g., race, income, education, etc.), I assume a linear population model:

$$y_{ic} = \beta x_{ic} + \varepsilon_{ic}$$

with $E(x_{ic}\varepsilon_{ic}) = 0$. ε_{ic} is an error term with $Var(\varepsilon_{ic}) = \sigma_D^2$, $E(\varepsilon_{ic}) = 0$, and $Cov(\varepsilon_{ic}, \varepsilon_{jd}) = 0$ if $i \neq j$ or $c \neq d$.

Supply Side: Consider word w in text t delivered by candidate c. For a given outcome, y_{wtc} (e.g., if word w is communal or not), and vector of covariates, x_{tc} (e.g., type of document, length of document, political party of the candidate, etc.), I assume a linear population model:

$$y_{wtc} = \gamma x_{tc} + \varepsilon_{wtc}$$

with $E(x_{tc}\varepsilon_{wtc}) = 0$. ε_{wtc} is an error term with $Var(\varepsilon_{wtc}) = \sigma_S^2$, $E(\varepsilon_{wtc}) = 0$, and $Cov(\varepsilon_{wtc}, \varepsilon_{usd}) = 0$ if $w \neq u$, $t \neq s$, or $c \neq d$.

Data: For the demand side analysis, I observe county-level averages:

$$\bar{y}_c = \frac{1}{n_c}\sum_{i=1}^{n_c} y_{ic}$$
$$\bar{x}_c = \frac{1}{n_c}\sum_{i=1}^{n_c} x_{ic}.$$

For the supply side analysis, I observe text-level averages:

$$\bar{y}_{tc} = \frac{1}{n_{tc}}\sum_{w=1}^{n_{tc}} y_{wtc}$$
$$\bar{x}_{tc} = \frac{1}{n_{tc}}\sum_{w=1}^{n_{tc}} x_{tc} = x_{tc}.$$

In what follows, I only consider the demand side case. However, similar steps can be taken to show that the same results hold for the supply side.

Regression Model:

$$\bar{y}_c = \beta \bar{x}_c + \bar{\varepsilon}_c$$

with $Var(\bar{\varepsilon}_c) = \frac{1}{n_c}\sigma_D^2$ and $Cov(\bar{\varepsilon}_c, \bar{\varepsilon}_d) = 0$ if $c \neq d$. This follows from the fact that

$$Cov(\bar{\varepsilon}\bar{\varepsilon}') = \begin{pmatrix} Var(\bar{\varepsilon}_1) & Cov(\bar{\varepsilon}_1, \bar{\varepsilon}_2) & \dots & Cov(\bar{\varepsilon}_1, \bar{\varepsilon}_C) \\ Cov(\bar{\varepsilon}_1, \bar{\varepsilon}_2) & Var(\bar{\varepsilon}_2) & \dots & Cov(\bar{\varepsilon}_2, \bar{\varepsilon}_C) \\ \vdots & & \ddots & \vdots \\ Cov(\bar{\varepsilon}_1, \bar{\varepsilon}_C) & Cov(\bar{\varepsilon}_2, \bar{\varepsilon}_C) & \dots & Var(\bar{\varepsilon}_C) \end{pmatrix}$$

Now note that $Cov(\bar{\varepsilon}_c, \bar{\varepsilon}_d) = Cov(\frac{1}{n_c}\sum_{i=1}^{n_c} \varepsilon_{ic}, \frac{1}{n_d}\sum_{j=1}^{n_d} \varepsilon_{jd}) = 0$ for $c \neq d$ since $Cov(\varepsilon_{ic}, \varepsilon_{jd}) = 0$ when $c \neq d$. Similarly, since $Cov(\varepsilon_{ic}, \varepsilon_{jc}) = 0$ when $i \neq j$, we have that $Var(\bar{\varepsilon}_c) = \frac{1}{n_c^2}\sum_{i=1}^{n_c} Var(\varepsilon_{ic}) = \frac{1}{n_c^2} n_c \sigma_D^2 = \frac{1}{n_c}\sigma_D^2$. Thus,

$$Cov(\bar{\varepsilon}\bar{\varepsilon}') = \begin{pmatrix} \frac{1}{n_1}\sigma_D^2 & 0 & \dots & 0 \\ 0 & \frac{1}{n_2}\sigma_D^2 & \dots & 0 \\ \vdots & & \ddots & \vdots \\ 0 & 0 & \dots & \frac{1}{n_C}\sigma_D^2 \end{pmatrix}.$$

Weights: Therefore, the optimal weighting is to weight each average by $\sqrt{n_c}$ – i.e., running the OLS regression

$$\bar{y}_c \cdot \sqrt{n_c} = \beta \bar{x}_c \cdot \sqrt{n_c} + \bar{\varepsilon}_c \cdot \sqrt{n_c}$$

– so that $Var(\bar{\varepsilon}_c \cdot \sqrt{n_c}) = \frac{n_c}{n_c}\sigma_D^2 = \sigma_D^2$.

Note that, in Stata, this corresponds to using *aweights* equal to n_c. From Stata:

```
aweights, or analytic weights, are weights that are inversely
proportional to the variance of an observation; that is, the variance
of the jth observation is assumed to be sigma^2/w_j, where w_j are
```

the weights. Typically, the observations represent averages and the weights are the number of elements that gave rise to the average. For most Stata commands, the recorded scale of aweights is irrelevant; Stata internally rescales them to sum to N, the number of observations in your data, when it uses them.

H Moral Foundations Questionnaire

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale:

0 not at all relevant (This consideration has nothing to do with my judgments of right and wrong)

1 not very relevant

2 slightly relevant

3 somewhat relevant

4 very relevant

5 extremely relevant (This is one of the most important factors when I judge right and wrong)

1. Whether or not someone suffered emotionally
2. Whether or not some people were treated differently than others
3. Whether or not someone's action showed love for his or her country
4. Whether or not someone showed a lack of respect for authority
5. Whether or not someone violated standards of purity and decency
6. Whether or not someone was good at math
7. Whether or not someone cared for someone weak or vulnerable
8. Whether or not someone acted unfairly
9. Whether or not someone did something to betray his or her group
10. Whether or not someone conformed to the traditions of society
11. Whether or not someone did something disgusting
12. Whether or not someone was cruel
13. Whether or not someone was denied his or her rights

14. Whether or not someone showed a lack of loyalty
15. Whether or not an action caused chaos or disorder
16. Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:

0 Strongly disagree

1 Moderately disagree

2 Slightly disagree

3 Slightly agree

4 Moderately agree

5 Strongly agree

17. Compassion for those who are suffering is the most crucial virtue.
18. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.
19. I am proud of my country's history.
20. Respect for authority is something all children need to learn.
21. People should not do things that are disgusting, even if no one is harmed.
22. It is better to do good than to do bad.
23. One of the worst things a person could do is hurt a defenseless animal.
24. Justice is the most important requirement for a society.
25. People should be loyal to their family members, even when they have done something wrong.
26. Men and women each have different roles to play in society.
27. I would call some acts wrong on the grounds that they are unnatural.

28. It can never be right to kill a human being.
29. I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.
30. It is more important to be a team player than to express oneself.
31. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.
32. Chastity is an important and valuable virtue.

The final scores for each moral foundation are then computed by summing responses across the following questions:
Harm / care: 1, 7, 12, 17, 23, 28
Fairness / reciprocity: 2, 8, 13, 18, 24, 29
In-group / loyalty: 3, 9, 14, 19, 25, 30
Authority / respect: 4, 10, 15, 20, 26, 31
Purity / sanctity: 5, 11, 16, 21, 27, 32

Items 6 and 22 are filler questions.

I Dictionaries for Text Analysis

I.1 Moral Foundations Dictionary

Care / Harm – Virtue: safe*, peace*, compassion*, empath*, sympath*, care, caring, protect*, shield, shelter, amity, secur*, benefit*, defen*, guard*, preserve

Care / Harm – Vice: harm*, suffer*, war, wars, warl*, warring, fight*, violen*, hurt*, kill, kills, killer*, killed, killing, endanger*, cruel*, brutal*, abuse*, damag*, ruin*, ravage, detriment*, crush*, attack*, annihilate*, destroy, stomp, abandon*, spurn, impair, exploit, exploits, exploited, exploiting, wound*

Fairness / Reciprocity – Virtue: fair, fairly, fairness, fair-*, fairmind*, fairplay, equal*, justice, justness, justifi*, reciproc*, impartial*, egalitar*, rights, equity, evenness, equivalent, unbias*, tolerant, equable, balance*, homologous, unprejudice*, reasonable, constant, honest*

Fairness / Reciprocity – Vice: unfair*, unequal*, bias*, unjust*, injust*, bigot*, discriminat*, disproportion*, inequitable, prejud*, dishonest, unscrupulous, dissociate, preference, favoritism, segregat*, exclusion, exclud*

Ingroup / Loyalty – Virtue: together, nation*, homeland*, family, families, familial, group, loyal*, patriot*, communal, commune*, communit*, communis*, comrad*, cadre, collectiv*, joint, unison, unite*, fellow*, guild, solidarity, devot*, member, cliqu*, cohort, ally, insider, segregat*

Ingroup / Loyalty – Vice: foreign*, enem*, betray*, treason*, traitor*, treacher*, disloyal*, individual*, apostasy, apostate, deserted, deserter*, deserting, deceiv*, jilt*, imposter, miscreant, spy, sequester, renegade, terroris*, immigra*, abandon*

Authority / Respect – Virtue: obey*, obedien*, duty, law, lawful*, legal*, duti*, honor*, respect, respectful*, respected, respects, order*, father*, mother, motherl*, mothering, mothers, tradition*, hierarch*, authorit*, permit, permission, status*, rank*, leader*, class, bourgeoisie, caste*, position, complian*, command, supremacy, control, submi*, allegian*, serve, abide, defere*, defer, revere*, venerat*, comply, preserve, loyal*

Authority / Respect – Vice: defian*, rebel*, dissent*, subver*, disrespect*, disobe*, sediti*, agitat*, insubordinat*, illegal*, lawless*, insurgent, mutinous, defy*, dissident,

unfaithful, alienate, defector, heretic*, nonconformist, oppose, protest, refuse, denounce, remonstrate, riot*, obstruct, betray*, treason*, traitor*, treacher*, disloyal*, apostasy, apostate, deserted, deserter*, deserting

Purity / Sanctity – Virtue: piety, pious, purity, pure*, clean*, steril*, sacred*, chast*, holy, holiness, saint*, wholesome*, celiba*, abstention, virgin, virgins, virginity, virginal, austerity, integrity, modesty, abstinen*, abstemiousness, upright, limpid, unadulterated, maiden, virtuous, refined, decen*, immaculate, innocent, pristine, church*, preserve

Purity / Sanctity – Vice: disgust*, deprav*, disease*, unclean*, contagio*, indecen*, sin, sinful*, sinner*, sins, sinned, sinning, slut*, whore, dirt*, impiety, impious, profan*, gross, repuls*, sick*, promiscu*, lewd*, adulter*, debauche*, defile*, tramp, prostitut*, unchaste, intemperate, wanton, profligate, filth*, trashy, obscen*, lax, taint*, stain*, tarnish*, debase*, desecrat*, wicked*, blemish, exploitat*, pervert, wretched*, ruin*, exploit, exploits, exploited, exploiting, apostasy, apostate, heretic*

General Morality: righteous*, moral*, ethic*, value*, upstanding, good, goodness, principle*, blameless, exemplary, lesson, canon, doctrine, noble, worth*, ideal*, praiseworthy, commendable, character, proper, laudable, correct, wrong*, evil, immoral*, bad, offend*, offensive*, transgress*, honest*, lawful*, legal*, piety, pious, wholesome*, integrity, upright, decen*, indecen*, wicked*, wretched*

I.2 MFQ Set

Care / Harm – Virtue: care, caring, compassion*

Care / Harm – Vice: suffer*, cruel*, hurt*, kill*, weak, vulnerable, defenseless

Fairness / Reciprocity – Virtue: fair*, rights, justice

Fairness / Reciprocity – Vice: unfair*

Ingroup / Loyalty – Virtue: loyal*, group, family, families, team, obey*, obedien*, duty, duties, country

Ingroup / Loyalty – Vice: betray*, disobe*, disloyal*

Authority / Respect – Virtue: respect*, tradition*, order*, authorit*

Authority / Respect – Vice: chaos, disorder, disrespect*

Purity / Sanctity – Virtue: purity, pure*, decency, god, chast*

Purity / Sanctity – Vice: disgust*, unnatural

J Most Common Moral Words from MFD

Table 34: Most Frequent MFD Words – All Candidates

Word	Moral Category	Rel. Freq. (%)
(1)	(2)	(3)
nation*	Ingroup Virtue	0.415
leader*	Authority Virtue	0.299
care	Harm Virtue	0.246
unite*	Ingroup Virtue	0.207
secur*	Harm Virtue	0.192
families	Ingroup Virtue	0.170
fight*	Harm Vice	0.154
war	Harm Vice	0.147
good	General	0.146
communit*	Ingroup Virtue	0.134
together	Ingroup Virtue	0.114
family	Ingroup Virtue	0.113
law	Authority Virtue	0.110
protect*	Harm Virtue	0.103
defen*	Harm Virtue	0.089
immigra*	Ingroup Vice	0.086
foreign*	Ingroup Vice	0.083
class	Authority Virtue	0.081
attack*	Harm Vice	0.080
safe*	Harm Virtue	0.079

Notes. This table reports the twenty most common MFD words and word stems used by all candidates across the 2008-2016 elections in documents collected for the text analysis. Column (2) reports the moral values associated with the MFD keywords and column (3) reports the average relative frequency the candidates used the keywords across the documents. Only non-stop words in a text are considered when calculating relative frequencies. See Appendix I for a list of all MFD keywords.

K Description of Main Variables

K.1 Supply Side Analysis

Relative frequency of communal moral terminology. For each document, I first compute the average word frequency across all words within a given category (vice / virtue), separately for each moral value. Then, for each value, I compute the mean of the average frequencies of vices and virtues. The summary statistic is then given by

$$\text{Rel. freq. communal moral terminology} = \frac{\#\text{ In-group } + \#\text{ Authority } - \#\text{ Care } - \#\text{ Fairness}}{\text{Total non-stop words}}$$

where $\#\ i$ denotes

$$\#\ i = \text{Ave}\Big[\text{Ave}_i^{\text{vices}}(\text{word freq.}),\ \text{Ave}_i^{\text{virtues}}(\text{word freq.})\Big]$$

The variable is then standardized into a z-score. These measures are calculated separately using the keywords from the MFD and MFQ.

Relative frequency of moral threat terminology

$$\text{Rel. freq. moral threat terminol.} = \frac{\Delta\ \text{In-group } + \Delta\ \text{Authority } + \Delta\ \text{Care } + \Delta\ \text{Fairness}}{\text{Total number of non-stop words}}$$

where

$$\Delta\ i = \Big[\text{Ave}_i^{\text{vices}}(\text{word freq.})\Big] - \Big[\ \text{Ave}_i^{\text{virtues}}(\text{word freq.})\Big]$$

Overall degree of morality. The relative frequency (only considering non-stop words) of all communal and universal moral keywords in a given text. This measure is calculated separately using the keywords from the MFD and MFQ.

Flesch reading ease score. A commonly used measure to assess the readability of a document. The formula for the Flesch reading ease score (Flesch, 1948) of a document is

$$\text{FRES} = 206.835 - 1.015\left(\frac{\text{total words}}{\text{total sentences}}\right) - 84.6\left(\frac{\text{total syllables}}{\text{total words}}\right).$$

Therefore, a higher score represents that a document is easier to read.

Document type. Whether a document was classified as a campaign speech, official statement, debate, or fundraising speech by the APP. Note that all documents I collected from George W. Bush's campaign website are classified as campaign speeches.

Frequency of purity / sanctity language. The number of times a candidate used purity / sanctity keywords from the MFD in a given text.

Frequency of general moral language. The number of times a candidate used general moral keywords from the MFD in a given text.

Relative frequency of right-wing vs. left-wing partisan language. Using the 20 most partisan phrases of each congressional session given in the online appendix of Gentzkow et al. (2017), I construct a measure of relative partisan language usage for each document. Specifically, the measure is constructed as

$$\text{Rel. freq. right- vs. left-wing lang.} = \frac{\#\text{right-wing} - \#\text{left-wing}}{\text{Total non-stop words}}$$

where #right-wing and #left-wing are the total number of occurrences of the most republican and most democratic phrases, respectively, from the two congressional sessions preceding the election year of the given document.

K.2 Demand Side Analysis

K.3 *Research Now* Survey

Relative importance of communal moral values. Constructed from MFQ moral foundations using a principal component analysis. Harm / care and fairness / reciprocity enter with negative weights (−0.4970 and −0.5276, respectively), while in-group / loyalty and authority / respect enter with positive weights (0.5273 and 0.4433).

Relative importance of communal moral values (uniform weights). Constructed from MFQ moral foundations. Harm / care and fairness / reciprocity enter with negative weights (-0.5), while in-group / loyalty and authority / respect enter with positive weights (0.5).

Relative importance of communal moral values (including purity / sanctity). First principal component of all five MFQ foundations.

Relative importance of communal moral values (pca survey questions). Constructed from MFQ survey items. First, each survey item underlying harm / care, fairness / reciprocity, in-group / loyalty, and authority / respect is normalized by dividing through the sum of responses to all survey items for the four foundations. The moral communalism measure is then the first principal component of these normalized survey items.

Difference in propensity to vote for Trump and average Republican. First, generate a binary variable for Trump, Romney, and Mccain each. Variable assumes a value of 0 if people voted for another candidate and 100 if voted for the respective candidate. Then compute the difference between the Trump variable and the average of the other two variables.

Difference in propensity to vote for Trump and Romney / McCain. Generate same binary variables as described above. Compute difference between Trump and Romney / McCain.

Difference in propensity to vote for Trump and average Republican (including non-voters). First, generate a three-step variable for Trump, Romney, and Mccain each. Variable assumes a value of 0 if people voted for another candidate, 50 if they did not vote at all, and 100 if voted for the respective candidate. Then compute the difference between the Trump variable and the average of the other two variables.

Difference in turnout between 2016 and earlier elections. For each election year, generate a binary indicator that equals 100 if the respondents voted and 0 otherwise. Then compute the difference between 2016 and the average of 2008 and 2012.

Evaluation of Trump: Loyalty vs. economy. Based on responses to the following survey question: "Please use the scale below to indicate which factor is more relevant for your evaluation of President Trump.

-5 means that A is much more important than B. 5 means that B is much more important than A. 0 means that A and B are equally important, or equally unimportant. You can use the intermediate values to state your opinion in a nuanced way.

A: Mr. Trump's economic and social policies, such as his impact on the unemployment rate. B: The extent to which Mr. Trump shows loyalty to his supporters and does not betray my community."

Δ **[Local–global] Support taxation.** Based on responses to the following survey question: "Imagine that there will be a new tax levered that amounts to 5% on all income. Please assume that 100% of the money collected for this tax will be directly spent on increasing the quality of schooling for children. Please imagine that this new tax will be implemented no matter what. However, imagine that you have a say in HOW it gets implemented because there are two options.

Please use the scale below to express your opinion. -5 means that you like A much more than B. 5 means that you like B much more than A. 0 means that A and B are

equally attractive to you, or equally unattractive. You can use the intermediate values to state your opinion in a nuanced way.

Option A: The taxes are collected by the local community and the money goes to the local schools in your school district. Option B: The taxes are collected by the federal government and the money is distributed equally to all schools in the country."

Δ **[Local–global] Donations.** Based on responses to the following survey question: "Over the past 12 months, how much money have you donated to each of the following entities:

1. Local schools, local libraries, and city-sponsored functions
2. Local communities (e.g., firefighters, local church) and local cultural groups (e.g., art museums)
3. Non-profit organizations that work towards a better life for people in America in general (e.g., Feeding America)
4. Non-profit organizations that work towards a better life for people around the world (e.g., United Way Worldwide)"

Then, generate variable of interest as $q1. + q2. - q3. - q4.$

Δ **[Local–global] Volunteering.** Based on responses to the following survey question: "Over the past month, how many hours have you volunteered for each of the following entities:

1. Local schools, local libraries, and city-sponsored functions
2. Local communities (e.g., firefighters, local church) and local cultural groups (e.g., art museums)
3. Non-profit organizations that work towards a better life for people in America in general (e.g., Feeding America)
4. Non-profit organizations that work towards a better life for people around the world (e.g., United Way Worldwide)"

Then, generate variable of interest as $q1. + q2. - q3. - q4.$.

Money allocation task. Based on responses to the following survey question: "Imagine that you had $99 at your disposal that you have to split between United Way Worldwide (a non-profit organization that focuses on improving education, income and health around the world) and the local firefighters in your town. How would you allocate the money between these two? For both options, 100% of your donation will support the cause and not go towards administrative costs.

1. Amount to United Way Worldwide:

2. Amount to local firefighters:"

Political conservatism. This variable is constructed from 13 survey questions that are taken from the 2016 pre-election survey wave of the Cooperative Congressional Election Study. These questions elicit respondents' attitudes on four categories: gun control (CC16_330a-CC16_330e), environment policies (CC16_333a-CC16_333d), crime policies (CC16_334a-CC16_334d), and budget priorities (CC16_337). For each of these categories, I construct a summary statistic by computing the first principal component of all items in the respective category. I then compute a summary statistic of political conservatism as first principal component of these four category-specific principal components.

Income bracket. Ten-step variable: <10k, 10k-15k, 15k-25k, 25k-35k, 35k-50k, 50k-75k, 75k-100k, 100k-150k, 150k-200k, >200k.

Educational attainment. Six-step variable: incomplete high school, high school diploma, some college but no degree, Associate's degree, Bachelor's degree, graduate or professional degree.

Ethnicity. White, African-American, Hispanic, Asian, American Indian, Other.

City size. 10-step variable: > 1 million, 200k-1m, 50k-200k, 20k-50k and close to metro, 20k-50k and not close to metro, 3k-20k and close to metro, 3k-30k and not close to metro, 500-3k and close to metro, 500-3k and not close to metro, <500.

Population density. Computed as average of the z-scores of the city size variable reported above as well as ZIP code level log population density.

Religiosity. 11-step variable: "On a scale from 0 (not at all) to 10 (very much), how religious are you?"

Religious denomination. Catholic, Protestant, Other Christian, Muslim, Jewish, Hindu, Buddhist, Agnostic, Atheist, Other.

Overall strength of moral concerns. Sum of harm / care, fairness / reciprocity, in-group / loyalty, and authority / respect.

General trust. 3-step variable: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?

1. Most people can be trusted
2. Don't know
3. Can't be too careful"

Trust in mainstream media. "On a scale from 0 (not at all) to 5 (very much), how much trust do you have in mainstream media?"

Trust in politicians. "On a scale from 0 (not at all) to 5 (very much), how much do you trust politicians?"

Personal job prospects. "On a scale from 0 (very bad) to 5 (very good), what do you think your personal job prospects look like?"

Altruism. Survey measure of altruism from Falk et al. (2016). Sum of z-scores of responses to two questions: "Imagine the following situation: Today you unexpectedly received $1,000. How much of this amount would you donate to a good cause?" and "On a scale from 0 to 10, how willing are you to give to good causes without expecting anything in return?".

Racism. "In your view, is the difference in economic achievement between Whites on the one hand and Hispanics or African-Americans on the other hand, due to lack of will and motivation, or not? (1: Difference in achievement not at all related to differences in will and motivation; 10: Difference in achievement entirely driven by differences in will and motivation)."

K.4 County-Level Analysis

Relative importance of communal moral values. Constructed from the MFQ dataset from www.yourmorals.org. The index is computed by applying the weights from the individual-level analysis (see above). As before, harm / care and fairness / reciprocity enter with negative weights (−0.4970 and −0.5276, respectively), while in-group / loyalty and authority / respect enter with positive weights (0.5273 and 0.4433).

Vote shares in Presidential Elections and Primaries. Source: Dave Leip's Atlas of US Presidential Elections, see http://uselectionatlas.org/.

Turnout. Computed as total number of votes divided by the population aged 18+ in a given county. Population aged 18+ is linearly interpolated from the American Community Surveys Data, which provides population estimates for 15+ and 20+.

Unemployment rate, median household income. Source: American Community Surveys, average 2011–2015.

Fraction employed in manufacturing. Source: United States Census - County Business Patterns.

Geographic covariates. Computed in ArcGIS as average within 2010 county boundaries.

Population density. Source: American Community Surveys, average 2011–2015.

Overall morality. Summary statistic of the overall strength of moral concerns, irrespective of which form they take. Constructed as sum of MFQ foundations harm / care, fairness / reciprocity, in-group / loyalty, and authority / respect.

Gini coefficient. Source: Chetty and Hendren (2017).

Fraction religious. Share of religious adherents. Source: Chetty and Hendren (2017).

Racism index. This index is based on Google Trends data that are first computed at the level of 204 Designated Market Areas (DMAs) and then assigned to each county within a DMA. The index reflects how often people in a given DMA google "nigger" relative to overall search volume. Source: Stephens-Davidowitz (2013).

Social capital index. Standardized index combining measures of voter turnout rates, the fraction of people who return their census forms, and measures of participation in community organizations. Taken from http://aese.psu.edu/nercrd/community/social-capital-resources/social-capital-variables-for-2014.

Fraction high school graduate or less. Fraction of the population who are most high school graduates, but never attended some college. Taken from American Community Surveys, average 2011–2015.