

The Long-Run Effects of Colleges on Civic and Political Life*

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Abstract

Social theorists and education advocates have long argued for the civic benefits of education. As large, durable institutions, universities are especially likely to affect the civic life of their communities. We investigate how the establishment of a university alters the civic and political trajectory of the surrounding area. For identification, we leverage historical site selection processes in which multiple locations were considered for new colleges. We bring together data on social capital, political preferences, and elections to assess the long-run impacts of college establishment. Communities with colleges exhibit higher levels of civic engagement and greater social trust today, relative to “runner-up” locations without colleges. These counties are also more politically liberal — a gap that has grown substantially since 2000. Our findings suggest understanding universities as place-based policies that shape the long-run civic and political development of their communities. They also shed light on current political battles over higher education policy.

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In November 1965, President Lyndon B. Johnson addressed a group of students and faculty at his alma mater, Southwest Texas State College, to mark the occasion of his signing the Higher Education Act.¹ This landmark law provided funding for higher education and established the framework for modern higher education policy in the U.S. In his remarks, President Johnson argued that “education in this day and age is a necessity.” His justification for spending on higher education focused not only on the economic benefits, but also the civic benefits of universities:

We will reap the rewards of [college graduates’] wiser citizenship and their greater productivity for decades to come. ... [The Higher Education Act] will help our colleges and our universities add grasp to their reach for new knowledge and enlightenment. From this act will also come a new partnership between campus and community, turning the ivory towers of learning into the allies of a better life in our cities.

President Johnson was not alone in invoking the dual benefits of higher education — economic and civic. Political and social theorists since Plato have argued that a well-educated citizenry is essential for democratic and civic life (Culp, Drerup and Yacek, 2023). Indeed, college graduates are more politically and civically engaged on a variety of measures: they are more likely to vote (Leighley and Nagler, 2013; Sondheimer and Green, 2010), run for office (Lawless, 2012; Motel, 2014), volunteer (Wilson, 2000), and participate in community groups (Brand, 2010).

But as Johnson recognized, universities become embedded in their local communities, potentially affecting civic culture beyond their direct effects on students. Contemporary universities host public educational and cultural events and often run civic initiatives such as get-out-the-vote drives (Bennion and Michelson, 2023). More generally, they serve as long-lived “anchor institutions” that employ many community members and coordinate with local

¹Johnson’s alma mater has been renamed several times over its history; since 2013, it is known as Texas State University.

governments, nonprofits, and businesses on community initiatives (Harkavy, 2006). These factors suggest that colleges may foster social capital, political participation, and political power of the communities in which they are located.

Do colleges and universities in fact improve the civic and political culture in their communities? There is a large body of work demonstrating the local economic effects of colleges and universities (Anselin, Varga and Acs, 1997; Frenette, 2009; Abel and Deitz, 2012; Liu, 2015; Andrews, 2021, 2023; Howard, Weinstein and Yang, 2024; Howard and Weinstein, 2022). While universities are often understood as drivers of individual mobility and regional development, their broader effects on the civic and political life of communities remain less well understood.

In this paper, we estimate the long-run effect of the establishment of college and universities on local civic and political outcomes. A key concern in identifying these effects is that places with colleges and universities may be systematically different from those without colleges. For example, colleges may have been founded in more politically powerful areas. We overcome this causal inference challenge by examining the historical “college site selection experiments” first identified in Andrews (2023), in which multiple locations were considered as potential locations for the establishment of a college or university. We compare the trajectories of “winning” locations, where a college was ultimately established, to “runner-up” locations that were considered but ultimately not chosen for as-good-as-random reasons.² In addition to relying on historical narrative evidence to ensure that the site selection decision was essentially random, we verify that the runner-up locations are similar to the winning location on a host observable economic, social, and political characteristics in the pre-treatment period.

Using these site-selection experiments, we find that colleges increase the civic and social capital in their communities. Counties with colleges exhibit higher rates of volunteering and

²While these are not randomized experiments, we draw on detailed narrative histories to focus on a set of colleges for which the college location was selected from the set of finalist locations in a way that approximates random assignment. For expositional convenience, we use the terminology “experiment” throughout, though “quasi-experiment” is more accurate. We discuss the research design in detail in Section 2.

a higher density of civic organizations. People in counties with colleges also express more social trust compared to people in runner-up counties, though there are more muted effects on other survey-based measures indicators of social capital. We also show that counties with colleges cast more votes in elections, even though the turnout *rate* is no higher in college counties. This latter finding follows from the fact that the county populations typically grows after a college is established relative to runner-up counties (Andrews, 2023). Thus, the establishment of a college increases the community’s political power in the long run, in the sense of increasing the number of constituents and voters in a locality.

Next, we examine whether colleges contribute to the growing political polarization in American politics. In recent years, colleges have become the site of heated political contestation, as trust in universities among Republicans has plummeted.³ At the individual level, there is a growing political divide between those with and without college degrees that emerged in the early 2000s and has continued unabated since then (Grossmann and Hopkins, 2024). Education, not income, is now the primary social dividing line between Democrats and Republicans (Barber and Pope, 2024).

We track the divergence between college counties and “runner-up” counties over the course of the 20th and 21st centuries. For most of the 20th century, there were minimal differences in voting patterns in presidential elections between places with and without colleges. Since 2000, however, the political divide has grown dramatically. Counties with colleges have been shifting steadily toward Democrats in presidential elections relative to runner-up counties. The timing of this shift is consistent with accounts of educational realignment driven by the rise of cultural issues, on which college graduates tend to be particularly liberal (Zingher, 2022; Marble, 2024).

We complement the presidential election results with data on the ideology of congressional representatives. Members of Congress representing areas with a college are increasingly liberal on economic policy issues (the first dimension of DW-NOMINATE), relative to runner-

³<https://news.gallup.com/poll/646880/confidence-higher-education-closely-divided.aspx>

up areas. We also find suggestive evidence that places with colleges elect representatives who are more liberal on racial issues (the second dimension of DW-NOMINATE) since roughly the 1940s.

Finally, using contemporary survey data spanning 2006-2023, we find that people living in counties with colleges are significantly more liberal on a host of social and economic policy questions, self-identify as more liberal, and are more likely to identify as Democrats.

Taken together, these findings contribute to an understanding of colleges and universities as “place-based policies” that affect the long-run development of their communities (Austin, Glaeser and Summers, 2018). A large literature in economics shows that universities bestow long-run economic advantages on the places where they are located. Universities increase economic mobility (Howard and Weinstein, 2022; Russell and Andrews, 2024), spur invention and innovation (Andrews, 2023), improve local educational attainment (Russell, Yu and Andrews, 2024), improve labor market outcomes even for those without a degree (Moretti, 2004), and enable cities to withstand structural economic changes (Glaeser, 2005; Howard, Weinstein and Yang, 2024). We complement this literature by showing that universities affect the civic and political trajectory of communities as well. In an era marked by declining social capital (Putnam, 2000), colleges anchor communities by fostering stronger civic cultures.

We also contribute to the literature on the effects of education on social and political behavior. Over the past two decades, educational attainment has become a defining political cleavage in politics around the world (Grossmann and Hopkins, 2024; Gethin, Martínez-Toledano and Piketty, 2022; Abou-Chadi and Hix, 2021). Most analyses of this phenomenon have focused on individual-level effects of educational attainment on political attitudes and voting behavior. We complement these micro-level analyses show how the political effects of universities extend to the broader communities in which they are embedded. This institutional approach to studying higher education complements research on how the establishment of public schools contributes to state-building (e.g. Paglayan, 2024; Paulsen, Scheve and Stasavage, 2023).

The rest of the paper is structured as follows. We first review prior work on higher education to develop theoretical expectations. Next, in Section 2 we describe our site selection research design. In the subsequent three sections, we present empirical results on civic engagement, political representation, and public opinion. In Section 6 we discuss some tests of mechanisms, before concluding in Section 7.

1 Theoretical Expectations

Universities are among the longest-lived institutions in the United States, often deeply impacting the character of the communities in which they are located. In this section, we first outline what we know about how universities affect the economic trajectory of their areas. We then develop expectations about how universities may affect civic and political outcomes.

1.1 Universities and Economic Development

Scholars in the fields of economics, urban studies, and public policy have investigated how universities affect local economic development. Given the perceived central role of universities in the success of innovation hubs (O’Mara, 2005; Florida, 2019; Lécuyer, 2006), much of the literature has focused on investigating the role of universities in driving innovation and related outcomes. Several studies use the opening of new universities in the U.S. as variation and find that universities increase local invention and productivity, as well as driving growth in employment, population, and urbanization (Andrews, 2023; Kantor and Whalley, 2019; Liu, 2015; Lee, 2019). Studies on university openings in other countries similarly find that universities increase local innovation (Andersson, Quigley and Wilhelmsson, 2004; Andersson, Quigley and Wilhelmsson, 2009; Bonander et al., 2016; Cowan and Zinovyeva, 2013; Lehnert, Pfister and Backes-Gellner, 2020; Schlegel et al., 2022; Schultheiss et al., 2023). Other studies leverage quasi-random variation in university funding levels and likewise find that universities increase local growth and innovation (Aghion et al., 2009; Kantor and Whalley, 2014; Gross and Sampat, 2023). Universities also promote economic resilience

(Howard, Weinstein and Yang, 2024) and provide opportunity for upward economic mobility for people living nearby the university (Russell and Andrews, 2024; Howard and Weinstein, 2022). Given these findings, several commentators argue for expanded university funding in distressed regions to improve local economies (Gruber and Johnson, 2019; Glaeser and Hausman, 2020; Maxim and Muro, 2021).

One particular way in which universities may affect their local economies is by increasing the average level of education for those living nearby. Several studies use proximity to universities as exogenous variation in the share of the population that has completed some higher education and finds that more educated people are more innovative (Toivanen and Väänänen, 2016), increase the productivity of others (Moretti, 2004), have higher earnings (Doyle and Skinner, 2016), and improve health outcomes (Currie and Moretti, 2003). Universities may increase local educational attainment through several channels. Most obviously, students who graduate from the university obtain an education; while educated individuals are highly geographically mobile, many nevertheless remain close to their alma maters (Groen, 2004; Bound et al., 2004; Zolas et al., 2015). Universities may also change the local composition of industries in ways that complement those with high educational attainment, inducing even those who do not attend the university to obtain skills and attracting educated individuals from other locations to migrate to be nearby the university. And a nearby university may provide role models and information about obtaining higher education to people growing up nearby (Do, 2004). Studies using variation in college openings conclude that colleges have a causal effect on local educational attainment (Frenette, 2009; Russell, Yu and Andrews, 2024). Russell, Yu and Andrews (2024) find that establishing a university increases educational attainment even at the high school level and by magnitudes that are larger than would be possible if the effect were driven entirely by graduates of the local university, suggesting that universities increase educational attainment even for those that do not attend the local university.

By comparing growth in places that receive universities to locations that receive other

kinds of local institutions like state capitals or asylums, Andrews (2023) concludes that most of the effect of universities on local population growth and local innovation from the late 19th to the late 20th century was due to universities operating as anchor institutions that attracted people and firms to migrate to the region, rather than to activities specific to universities. In this sense, universities have similar local effects to other place-based policies, like the construction of large manufacturing plants (Greenstone, Hornbeck and Moretti, 2010; Garin and Rothbaum, 2025) or infrastructure investments (Kline and Moretti, 2014; Garin, 2019). Harris and Holley (2016) survey the role of universities as anchor institutions. While universities had local effects on innovation and population growth similar to other place-based policies, it is possible that universities had effects on social and political attitudes — which are not observed in these other studies — that are different from those of other kinds of institutions. Additionally, because political representation is determined by population, establishing a university likely increases local political power simply by inducing population growth.

1.2 Higher Education and Civic Capital

Since the earliest political theorists, scholars have been concerned with the question of *democratic education* — the ways that education contribute to self-governance.⁴ Plato’s *Republic* famously includes an extended discussion of how education ought to be structured to promote moral and political development; for Aristotle, education “serve[s] the singular civic purpose of facilitating a partnership of all citizens in living the best kind of life” (Curren, 2023). American political thinkers, too, have emphasized how education can improve democracy. Thomas Jefferson (1820) defended the role of education in promoting self-governance:

I know no safe depository of the ultimate powers of the society, but the people themselves: and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is, not to take it from them, but

⁴See the edited volume by Culp, Drerup and Yacek (2023) for an overview of democratic education from the perspective of political theory.

to inform their discretion by education. This is the true corrective of abuses of constitutional power.

This philosophical commitment to democratic education is reflected in arguments for investment in education. Legislators throughout American history have justified state spending on higher education in part because they perceived that universities could help foster an engaged citizenry. For instance, the Morrill Act of 1862, which established the American system of land grant institutions, aimed to increase the “liberal and practical education” of the citizenry. And early leaders of the University of Wisconsin, one of the nation’s preeminent public universities, described their “primary duty to the people of Wisconsin,” with knowledge “developed and prepared expressly for the people and conveyed directly to them” (Turner, 1893).⁵

What does empirical scholarship have to say about these purported civic benefits of education? Scholars have long noted that citizens with more education are more likely to vote, donate to political campaigns, be familiar with political issues, sign petitions, and attend governmental meetings (e.g., Almond and Verba, 1963; Wolfinger and Rosenstone, 1980; Miligan, Moretti and Oreopoulos, 2004; Leighley and Nagler, 2013). While the cross-sectional correlation between engagement and education is not in doubt, there is mixed evidence on whether this relationship is causal. The key inferential challenge is that there may be common factors — such as cognitive ability, family background, personality traits, or socialization — that cause both educational attainment and political participation. Researchers have tried to disentangle selection and treatment effects by exploiting discontinuities in admission policies (Hangartner et al., 2020; Apfeld et al., 2024), field experiments (Sondheimer and Green, 2010), matching and covariate adjustment (Kam and Palmer, 2008), variation in schooling laws (Berinsky and Lenz, 2011), and comparisons between students who attend different colleges but have similar application portfolios (Bell et al., 2024). In general, the evidence on whether education in general causes political engagement is mixed and context-

⁵<https://historyofcapitalism.net/Hist-TimelineJS-images/1893%20Turner%20on%20UW%20Extension.pdf>

dependent. However, studies specifically focusing on *higher* education have generally found a positive causal relationship (Apfeld et al. 2024; Hangartner et al. 2020; see Jensen 2025 for a recent meta-analysis).

Beyond political participation, education is also associated with a broader array of outcomes related to social capital (Helliwell and Putnam, 2007). Education is associated with higher trust (Alesina and La Ferrara, 2002), higher rates of volunteering (Wilson, 2000), and more participation in community groups (Brand, 2010). While the same concerns about causality apply here, one of the few studies examining the effects of higher education with a credible research design finds a causal effect of higher education on social capital (Apfeld et al., 2022).

The individual-level evidence thus suggests that higher education may increase civic engagement and social capital. The establishment of a college may therefore affect the civic culture by increasing the educational attainment of the local population (Russell, Yu and Andrews, 2024). But the effect of universities on political and civic life is likely to go beyond the direct effect of education on students. Universities serve as anchor institutions that may help to promote social capital in their communities. Universities are often the largest employers in their areas, potentially generating social networks among their employees that facilitate collective action. They also host public-facing educational and cultural events; student groups may run get-out-the-vote efforts; and universities often coordinate with local governments. Even community members who are not directly affiliated with the university may attend these events, where they may be mobilized, meet neighbors, and coordinate collective action. Such face-to-face meetings lay the groundwork for social trust, local political cooperation, and civic engagement more generally (Putnam, 2000).

Yet, trends in education may push against the goals of democratic education. The past several decades have been characterized by an increased emphasis on skill development, testing, and cost-benefit approaches to education policy that often focus on labor market outcomes and human capital development. While these issues have touched all levels of edu-

cation, the rising cost of college has made them particularly pertinent for higher education. Critics argue that these developments, sometimes pejoratively described as a “neoliberal” turn, undermine the civic goals of education. Giroux (2009, p. 254), for example, decries “educational reforms that make financial self-interest (and potentially greed) the cornerstone of a policy clearly aimed at producing empowered consumers rather than engaged, critical citizens.” More specifically, enrollment in humanities and social sciences majors has declined over time, and there is some suggestive evidence that these majors have larger effects on political participation (Hillygus, 2005). If it is the case that the nature of higher education has changed, to the detriment of civic culture, we would observe that effects of universities will have attenuated in recent years.

Overall, however, this prior work leads us to expect that places with colleges will exhibit higher rates of political participation, higher social capital, and greater generalized trust. We test this proposed *civic capital* effect by gathering georeferenced data on social capital, volunteering, and turnout in elections.

1.3 The Effect of Higher Education on Political Views

How do colleges shape the political preferences of their communities? Over the past several decades, educational attainment has become a prominent political dividing line in the U.S. and Western Europe (Grossmann and Hopkins, 2024; Zingher, 2022; Abou-Chadi and Hix, 2021; Gethin, Martínez-Toledano and Piketty, 2022; Marble, 2024). College graduates are now significantly more likely than those without degrees to vote for left-leaning parties. In the U.S., this gap emerged at the beginning of the 21st century, after a long period of relatively muted differences in voting behavior between those with and without a college degree.

Underlying this growing education divide in voting behavior are longstanding divides in public opinion between those with and without college degrees. Higher education is associated with liberal attitudes on immigration, the environment, and reproductive rights

(Apfeld et al., 2024, 2023; Cavaille and Marshall, 2019). Similarly, white voters with college degrees hold more liberal views on race and civil rights than those without college degrees. These education gaps over cultural issues, broadly defined, are longstanding, though they were not particularly important in structuring electoral cleavages through the 20th century (Gelman, 2009; Bartels, 2006). Since the early 2000s, however, cultural issues have become increasingly important in elections (Tausanovitch and Holliday, 2025). Over this time period, Democratic (Republican) politicians have taken more consistently liberal (conservative) positions on cultural issues — contributing to the contemporary partisan education divide.

On economic issues, there is evidence that educational attainment makes people more conservative (DeCicca, Krashinsky and Nesson, 2023; Marshall, 2016). However, in recent years, there is some evidence that college graduates are expressing more liberal economic policy preferences as well, though the evidence on this point is not causal (Broockman, Ferenstein and Malhotra, 2019; Marble, 2024).

Summing up, the micro-level literature on educational attainment and political attitudes suggests that places with colleges will have more liberal policy preferences in the contemporary era. It also suggests that there should be growing divergences in voting behavior, driven by the increased electoral salience of the issues that divide those with and without college degrees. We test these expectations by assembling county-level data on voting patterns in presidential elections, district-level data on the ideology of Congressional representatives, and survey data measuring political attitudes.

2 Design: College Site Selection Experiments

To study the long-run impacts of colleges and universities, we need appropriate counterfactuals to show how outcomes for local areas would have evolved had a college or university not been established. A key concern for our purposes is that college locations may have been chosen based on the pre-existing political clout or economic resources of a community. As a result, a naive comparison of places with colleges to those without colleges is unlikely to

capture the causal effects of the college.

We overcome this potential bias by drawing on a series of historical college site selection quasi-experiments where several comparable locations were considered for a college before a final location was decided. Our empirical design compares outcomes in the “winning” locations of these site selection processes to the outcomes in the as-good-as-randomly determined “runner-up” locations. Andrews (2023, 2022) reviews the narrative establishment histories of every significant college and university in the United States — defined as all land grant colleges, public flagships, military academies, state technical schools and mining colleges, universities belonging to a Power Five athletic conference, national universities ranked by U.S. News and World Report in 2018, the 25 top-ranked liberal arts colleges, and the first public university founded in each state — for a total of 451 institutions. Of these, in 181 cases, the narrative records reveal that several sites were seriously considered for the site of a new college or university. Previous studies have used similar “finalist designs” to study local effects of new institutions; for example, Greenstone, Hornbeck and Moretti (2010) compare locations that received large manufacturing plants to other locations under consideration. Andrews (2023) advances this research design by further restricting the sample to cases in which the narrative histories show that which of the finalist locations received the college was essentially random; this as-good-as-random assignment occurred in 63 cases. We refer to these 63 cases as the “college site selection experiments,” in which we compare “winning” or “college” locations (treatment group) to “runner-up” locations (control group).

To be clear, we are not claiming that in these 63 cases, college locations were placed randomly within their state; even in these cases, state legislators and site selection committees considered local attitudes, political clout, access to needed infrastructure, and much more when deciding where to locate colleges. Instead, we argue that in these 63 cases, *among the set of finalist locations*, which finalist won the college was as good as random. The rich narrative detail on the college site selection process gives us confidence that the decision was effectively random, even if important factors in the site selection decision cannot be

measured using traditional historical data sources.

To further illustrate this methodology, we describe several of the as-good-as-random site selection experiments here.⁶ In some cases, which of the finalist locations won the college was literally random, with the winning location drawn by lots (this occurred for the University of North Dakota and North Dakota State University). In other cases, such as University of Illinois, Purdue University, and the University of Florida, multiple towns submitted similar bids to receive the college, with only one ultimately chosen. In still other cases, it took multiple rounds of balloting to find a winner (7 rounds of balloting for University of Mississippi, 8 rounds for Southern Arkansas University, 24 rounds for the Georgia Institute of Technology, and a whopping 111 for what would become University of Nebraska at Kearney). The fact that finalist locations were tied for multiple rounds of voting suggests that both the winning and runner-up locations were similar in terms of political influence and enjoyed comparable popular support. Site selection experiments occur as early as 1839 and as late as 1954, though the majority of experiments are concentrated in the 1880s and 1890s. Appendix A lists all the site selection experiments in our sample.

To further bolster confidence in the research design, we compares the winning and runner-up counties over a large number of observable characteristics prior to college establishment, including: the fraction of the population attending school, total population, manufacturing and agricultural output, the fraction of interstate migrants, the fraction living in urban areas, mean age, and access to transportation. The winner and runner-up counties are similar along all of these dimensions, and are also evolving similarly over several decades prior to receiving the college, exhibiting parallel pre-trends, as we show in Appendix B. Also in that appendix, we estimate pre-treatment differences in presidential election results and turnout. We find minimal differences in turnout or vote shares in the election immediately prior to treatment. However, we find a small difference in Democratic vote share two elections prior to treatment. Thus, as a robustness check, we thus re-estimate all our election results models controlling

⁶We refer interested readers to Andrews (2022), which contains a detailed description of each of the college site selection processes considered in this paper.

for these baseline differences and find nearly identical results. Appendix G presents figures showing that there are no pre-trends in election outcomes prior to college establishment, using a difference-in-differences style approach. These facts, along with the as-good-as-random nature of the college location decision, lend credence to the unconfoundedness and parallel trends assumptions needed to identify causal effects of colleges (Kahn-Lang and Lang, 2020; Hassell and Holbein, 2025), as we detail below.

2.1 Empirical Strategy

To study the long-run effects of college establishment on political and civic outcomes, we regress geographic-level outcomes (usually measured at the county level) on an indicator for the winning location plus fixed effects for each college site selection experiment. Formally, the primary specification is:

$$Y_{cte} = \tau \text{Winner}_c + \alpha_e + \varepsilon_{ct},$$

where Y_{cte} is the outcome measured in county c and time t associated with experiment e , Winner_c is an indicator for the county being the winner of a college site selection experiment, and α_e a site selection experiment fixed effect. This specification exploits within-experiment differences between counties in which the college was ultimately located and the runner-up counties. The coefficient τ represents the average treatment effect of having a college established in the county, relative to being a runner-up.

For many of our outcome variables, such as civic engagement and social trust, we only have data for periods after the college is established. But for some outcomes, such as election results, we have data for both pre-treatment and post-treatment periods. In these cases, we can conduct differences-in-differences analyses to show how the difference in the outcome between the winning and runner-up counties changes after the college is established. We discuss the identifying assumptions and estimation equations for this strategy, which use

newly developed panel data estimators (Liu, Wang and Xu, 2024), and discuss results, in Appendix G. In all cases, the differences-in-differences analysis delivers similar results to our baseline specifications.

2.2 Disentangling Direct and Compositional Effects

Our treatment of interest — the establishment of a college — occurs at the geographic level. Accordingly, all of our inferences ultimately refer to effects on a place, even when we observe individual-level outcomes (e.g., survey responses). The establishment of a college could affect outcomes through two channels that are conceptually distinct: direct effects and compositional effects.

Direct effects refer to the influence that universities exert as institutions directly, holding fixed the population. Colleges sponsor civic programming, serve as hubs of public discourse, engage in local partnerships, and expose residents — both affiliated and unaffiliated — to cultural and political events. These activities may foster social trust, civic participation, and liberal policy attitudes by shaping local norms and opportunities for engagement. These effects operate through the presence and actions of the institution itself.

Compositional effects, in contrast, reflect changes in who lives in the area following the establishment of a college. Colleges attract students, faculty, and staff, and often shift local occupational and industrial structures. Because political and civic outcomes are correlated with education and other sociodemographic characteristics, a county with a more highly educated population may exhibit different aggregate behavior even if the university were exerting no further influence. These changes are an important part of the place-based impact of universities, but they represent a different mechanism than institutional engagement.

While we cannot cleanly separate these mechanisms in our analyses, we do provide suggestive evidence. When we can observe individual-level demographic data, we estimate models both with and without sociodemographic controls. If the coefficient on the treatment indicator shrinks when individual-level controls are included, it would provide suggestive evidence

that the effects are driven at least in part by compositional differences.

That said, it is important to treat this analysis as descriptive rather than causal. Because the treatment is assigned at the geographic level, controlling for individual-level characteristics risks introducing post-treatment bias. Our aim is not to “control away” these compositional effects, but rather to clarify the channels through which the observed aggregate patterns operate.

3 Civic Engagement

To begin, we estimate the effect of receiving a college on communities’ civic engagement. We analyze three dimensions of civic engagement: (1) social capital, (2) social trust, and (3) participation in politics. We find that colleges lead to increased volunteering, a higher density of civic organizations, and greater generalized social trust. We also find that counties with colleges cast more votes in presidential elections, though the turnout *rate* is no higher in college counties.

3.1 Social Capital

We use social capital data from Chetty et al. (2022a) to explore whether historic college establishment has affected contemporary rates of civic engagement. These data are based on 72.2 million Facebook users aged 25-44 as of May 2022. The measures are (1) volunteering rates and (2) the density of civic organizations.

County-level volunteering rates are generated by first identifying Facebook Groups which are predicted to be related to volunteering or activism based on their group titles. The volunteering rate is then defined as the share of Facebook users in the county who are a member of at least one volunteering or activist organization. Civic organizations are identified through “public good” pages with a website link, description, and address. Civic organization density is calculated as the number of civic organization pages in the county,

Table 1: Effect of College Establishment on Civic Engagement Measures

	(1)	(2)
	Facebook Volunteering Rate	Facebook Civic Organizations
Winning Location	0.0120*** (0.0042)	0.0037*** (0.0009)
Control Mean	.0736	.0173
Counties	191	191
Experiments	63	63

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: The volunteering rate is the percentage of Facebook users in the county who are members of a group which is predicted to be about “volunteering” or “activism” based on group title and other group characteristics. Some noise is added to protect privacy. The number of civic organizations in the county is the number of Facebook Pages predicted to be “Public Good” pages based on page title, category, and other page characteristics, per 1,000 users in the county. Each page is assigned to a county based on the listed address. Some noise is added to protect privacy. Data source: Chetty et al. (2022b).

assigned based on the listed address, per 1,000 Facebook users in the county.⁷

Table 1 shows estimated impacts on each of the two civic engagement measures using within-experiment regression models. Column 1 indicates that the volunteering rate is 1.2 percentage points higher in college counties than runner-up counties. This effect size represents a sizable, 16% increase relative to the control group mean of 7.4%. Column 2 indicates that the density of civic organizations is 0.0037 higher in college counties. The effect size on this outcome is similar in relative terms — a 21% increase over the control group mean of 0.0173.

These results show that the establishment of a college increases the level of social capital in its respective county, relative to the runner-up counties. It is worth noting that these

⁷Chetty et al. (2022a) validate these measures, showing that both the volunteering rate and the civic organization density measures correlate highly with other indices designed to measure civic engagement and social capital, including survey-based volunteering rates from the Social Capital Project and the Penn State index (Rupasingha, Goetz and Freshwater, 2006), which uses county business patterns Census Bureau data on membership organizations, response rates to Census Bureau surveys, percentage of voters who voted in Presidential elections, and per-capita non-profit organizations from the National Center for Charitable Statistics (Chetty et al., 2022a).

outcome measures are normalized by population, so these effects are not merely driven by an increase in population. Additionally, the measures are captured using residents age 25-44, and thus do not primarily capture the activity of college students but rather the surrounding community more broadly. Overall, these findings are in line with micro-level studies showing a positive association between higher education and social capital.

3.2 Social Trust

We next investigate attitudinal measures of social capital, using data from the General Social Survey (GSS). Using restricted-use geographic data, we match respondents to their respective counties, to explore beliefs in winner versus runner-up counties.

We focus on outcomes related to generalized trust, frequency of socializing with friends and neighbors, and (self-reported) altruistic behavior — all core components of social capital (Alesina and La Ferrara, 2002).⁸ We regress survey responses on an indicator for living in a county with a college and experiment fixed effects, to isolate within-experiment comparisons. We also include fixed effects for survey year, which account for secular trends in public opinion. In a secondary analysis, we add individual-level demographic controls, which include education, age, gender, and race controls. As discussed previously, these models provide suggestive evidence on the role of changes to demographic composition as the mechanism driving treatment effects.

While the GSS contains high-quality measures of social trust, the sample size for any given survey is limited. Across all the survey years where county identifiers are available (1993-2018), we have 5,225 respondents who reside in one of our experimental winner or runner-up counties. Only 51 of the 191 counties represented in the 63 site selection experiments have a respondent in any year. This corresponds to 31 experiments, with 16 of those experiments having both treatment and control county representation. Moreover, some survey questions are asked in only a subset of the survey years, resulting in even smaller sample sizes for

⁸Appendix C details the wording of each question.

some of the survey questions. So, while we report analyses of these data, we note the limited power throughout our discussion of the findings.

Table 2 reports the results.⁹ We report the number of respondents with a non-missing value for each survey question (N), the mean response among respondents in control (runner-up) counties, and the estimated difference in winner versus runner-up counties, $\hat{\tau}$. Column (1) shows results from our main specification, which does not include individual-level controls. The models reported in Column (2) include demographic controls. These estimates should thus be interpreted as difference between people living in treated and control counties, after adjusting for differences in the demographic composition of the counties.

Residents of college counties are 6 percentage points more likely to answer that most people can be trusted when asked “generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” (relative to a control group baseline of 35%) and 9 percentage points more likely to agree that “people are helpful” (relative to a control group baseline of 50%). They are also more likely to express agreement with the idea that “people are fair,” though these differences are only marginally significant. These findings suggest that counties with colleges have greater levels of generalized trust than runner-up counties. However, we also find that those in college counties also report having slightly *fewer* close friends and express no detectable differences in some of the other social capital measures. In sum, we find evidence of increased social trust in college counties, relative to runner-up counties.

3.3 Political Participation

Next, we examine whether places with colleges have greater political participation. We operationalize participation using the number of votes cast in elections at the county level. This outcome is appropriate for two reasons. First, presidential election results are available over a long time span, enabling us to investigate dynamics of participation effects over time.

⁹See Appendix H for results tables that include estimates for all control variables.

Table 2: Social Trust and Engagement

	N	Control Mean	(1)	(2)
Can Trust People	2986	0.35	0.08*** (0.02)	0.06*** (0.02)
People are Fair	2759	0.56	0.06* (0.03)	0.04** (0.02)
People are Helpful	2747	0.50	0.11*** (0.03)	0.09*** (0.03)
How Often Evening w Neighbor (1-7 scale)	3068	4.71	-0.02 (0.15)	0.00 (0.15)
How Often Evening w Friends (1-7 scale)	3069	3.85	-0.1 (0.07)	-0.04 (0.06)
How Many Close Friends	208	2.26	-0.98*** (0.23)	-0.83** (0.38)
Need to Worry about Others	735	0.48	0.02 (0.05)	-0.01 (0.05)
Assisting People is Important	737	0.78	0.03 (0.03)	0.02 (0.03)
Carried Another Person's Belongings	735	0.50	-0.07 (0.06)	-0.05 (0.06)
Looked after Plant or Pet While Away	738	0.56	0.02 (0.06)	0.00 (0.06)
Experiment FEs			✓	✓
Year FEs			✓	✓
Individual Controls				✓

Notes: Columns 1-2 show the estimated coefficient on living in a winner county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses. Data source: General Social Survey * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Second, colleges are place-based institutions, and a focus on aggregate turnout reflects our interest in the community-wide effects of colleges, as opposed to more narrowly investigating the micro-level effect of college attendance on turnout.

We use two dependent variables, each reflecting different aspects of turnout: the total number of votes cast and turnout as a proportion of the population. In the first analysis,

we estimate the effect of college establishment on the total number of votes cast in the county in each election. To measure total turnout at the county level from 1872 to 2024, we employ data from the CQ elections archive, ICPSR study 8611 (Clubb, Flanigan and Zingale, 2006), and the MIT Election Lab. In the second analysis, we estimate the effect of college establishment on the turnout rate as a proportion of the voting-eligible population, using county-level turnout rate measures from Gray and Jenkins (2024).¹⁰

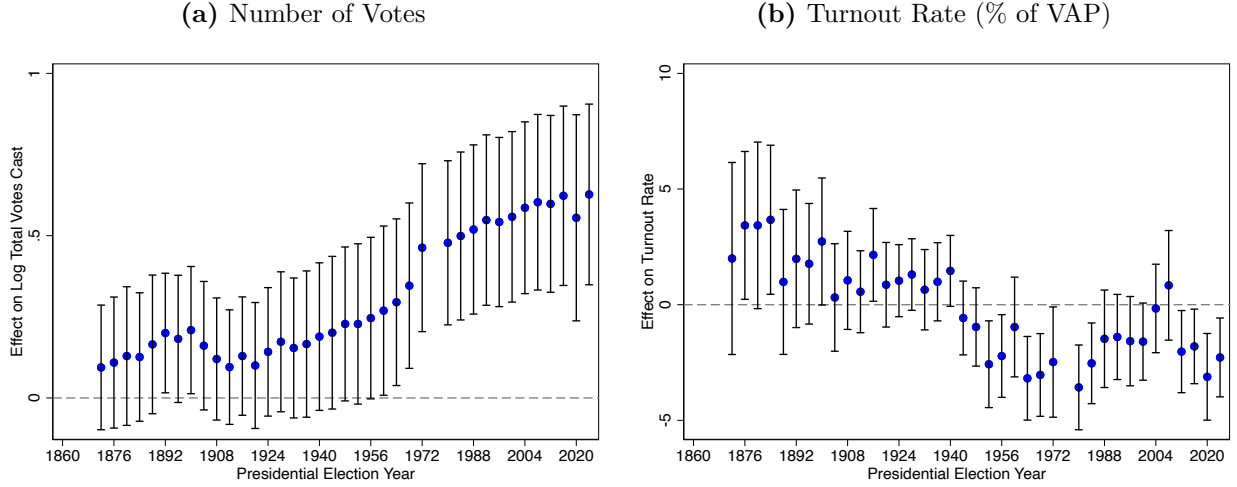
Both of these outcomes are theoretically important. The total number of votes within a county is related to the county population and its political power in absolute terms. If colleges lead to population gains in the surrounding areas, they are also likely to lead to additional votes coming from that area and potentially an increased number of legislative representatives. The turnout rate, on the other hand, is more closely related to the literature on turnout and education, as micro-level studies suggest that educational attainment is correlated with higher turnout rates. However, the establishment of a college might not lead to a higher turnout rate in the surrounding community if colleges also change the demographic composition of the local population. Places with colleges are likely to have larger populations of young people and people who are registered to vote in other regions. Even if college students turnout at a higher rate than others in their age group, in absolute terms young college-educated people still turn out at a relatively low rate. So theoretically, we expect college counties to cast more votes in elections, but it is theoretically ambiguous whether the turnout rate should be higher or lower.

Figure 1a shows the treatment effect estimates on the total number of (log) votes in each election. Consistent with the idea of universities stimulating population growth, winning counties cast significantly more votes in presidential elections than runner-up counties. The effect appears as early as the late 19th century, though the estimates are not consistently individually statistically significant until the 1960s.¹¹ The difference between winning and

¹⁰This outcome variable takes into account changes in enfranchisement laws over the course of the 19th and 20th centuries.

¹¹For each election, we restrict the sample to experiments where the college was founded prior to the election.

Figure 1: Effect of College Establishment on Turnout in Presidential Elections



Notes: The outcome variables are log total votes (left) and turnout as a share of the voting age population (right), measured at the county level, in each presidential election. Points show estimates from within-experiment regressions, run separately for each election year. Bars show robust 95% confidence intervals.

runner-up counties has been increasing over time. In the 2024 election, winning counties cast about 87% more votes than runner-up counties.

While the raw number of votes is higher in winning counties, these counties do not exhibit a higher turnout *rate*. Figure 1b shows that for elections through the mid-20th century, there is a small but usually insignificantly higher turnout rate in winning counties than in runner-up counties. However, starting around 1950, winning counties exhibit a slightly lower turnout rate that is sometimes statistically significant. Throughout the time series, the estimated effect is no larger than 4 percentage points in either direction and our confidence intervals rule out effects larger than 8 percentage points or smaller than -5 percentage points.

4 Political Representation

We now turn to an investigation of how colleges affect political attitudes and aggregate-level political outcomes. We focus on two sets of outcomes: (1) vote shares in presidential elections and (2) the ideology of elected members of Congress. We find that colleges push their communities leftward, towards Democrats and more liberal members of Congress, with

the effect being most prominent since 2000. In the next section, we use survey data to investigate effects on specific policy opinions.

4.1 Democratic Vote Share in Presidential Elections

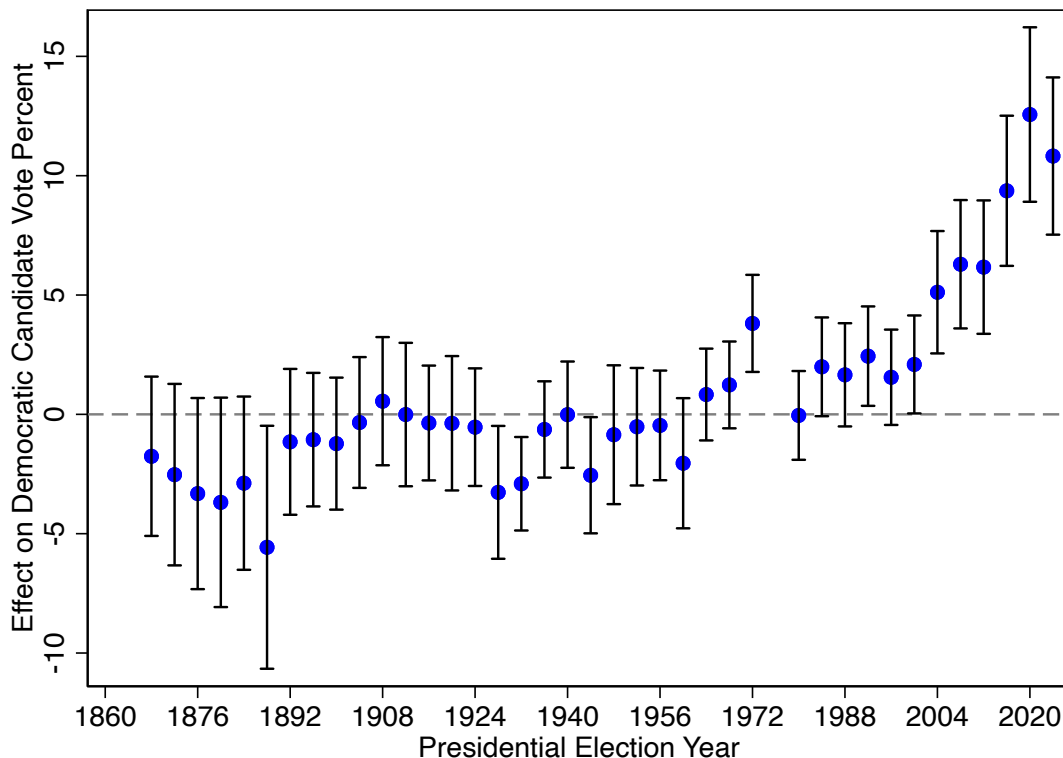
Do places with colleges differ in the political candidates they support compared to places without colleges? To answer this question, we focus on Democratic vote share in presidential elections as our main outcome. The meaning of this outcome varies dramatically over the course of our time series. From the mid-19th century to the early 20th century, the Democratic Party dominated in the Jim Crow South, while the Republican Party represented Northern business interests. The New Deal coalition, established in 1932, pulled together racially conservative Southerners with labor interests. Over the next 30 years, labor leaders increasingly pushed the Democratic Party to embrace racial egalitarianism, leading to a racial realignment that was crystalized in presidential elections in the 1960s and 1970s (Schickler, 2016). Despite the current association of higher education with the Democratic Party, there was not significant educational polarization until recently.

We run the same regressions as in our analysis of turnout, estimating the average difference in Democratic vote share between winning and runner-up counties in presidential elections from 1852 to 2024. We plot the results in Figure 2, which shows the within-experiment treatment effect estimate in terms of percentage points.

For most of the time series, we find virtually no difference in election outcomes. Throughout the 19th and 20th centuries, college counties were generally no more or less Democratic than runner-up counties, on average. While there are occasional elections before 2000 in which the treatment effect estimate is significant, the estimates are generally small in magnitude.

However, over the past 25 years, winning and runner-up counties have diverged substantially in their electoral preferences. Starting in 2000, winning counties show significantly higher Democratic vote shares than runner-up counties. This effect has steadily increased

Figure 2: Effect of College Establishment on Democratic Vote Share in Presidential Elections



Notes: The outcome variable is county-level vote share for the Democratic Party candidate in each election. Points show estimates from within-experiment regressions, run separately for each election year. Bars show robust 95% confidence intervals.

over the course of the 21st century, from an effect size of around 2 percentage points in 2000 to over 10 percentage points in 2024. Counties with colleges thus have increasingly distinct political preferences, as compared to runner-up counties.

This result accords with a number of changes in American political coalitions over the past 50 years. At the individual level, the “education gap” in presidential voting did not appear until the early 2000s — timing that aligns with our findings here (Carnes and Lupu, 2021; Marble, 2024). These results are also consistent with the growing population-density divide in American politics, in which dense urban areas vote for Democrats and less dense ex-urban and rural areas vote for Republicans (Rodden, 2019).

In Appendix G, we estimate treatment effects using various difference-in-difference esti-

mators (Liu, Wang and Xu, 2024). In these models, dynamic treatment effects are measured relative to the time of the college establishment, rather than the actual election year. This research design relies on a slightly weaker identification assumption, discussed in the appendix. These results show patterns similar to those presented here, in which there is a non-significant average treatment effect until many years after the college is established — corresponding to the recent decades in our sample.

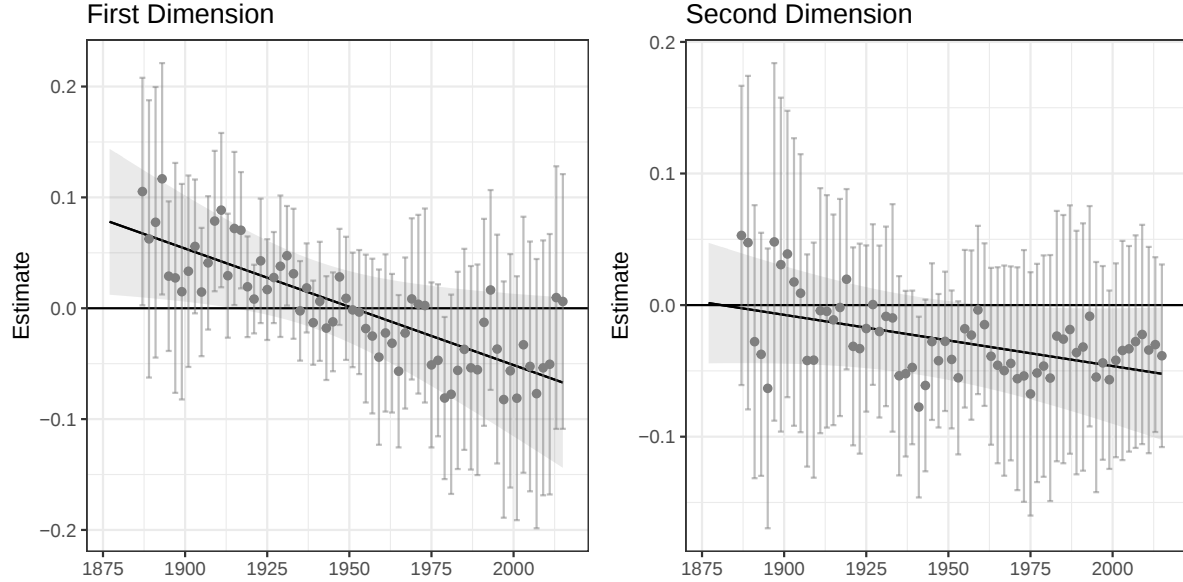
4.2 Representation in Congress

We next investigate whether the establishment of a college affects the representation that areas receive in Congress. For most of the 20th century, congressional politics was significantly less polarized and nationalized than it is today. Even though we found no significant treatment effects on presidential election outcomes for most of the 20th century, it is possible that winning locations elected congressional representatives with different ideologies than losing locations.

We geocoded winning and losing locations into their respective congressional districts in each congress from the 45th (beginning just after Reconstruction, in 1877) to the 114th (beginning in 2015) using shapefiles from Lewis et al. (2013). We then merged in House members’ first- and second-dimension NOMINATE scores, which provide summary measures of their ideology based on their roll call votes, obtained from VoteView.com. The first-dimension score is typically taken to represent members’ ideology on a left-right economic dimension, while the second-dimension score is often interpreted as members’ ideology on racial issues (Poole and Rosenthal, 2007). We again estimate fixed effects regressions to isolate the within-experiment difference in congressional representation between winning and runner-up locations.

The results are shown in Figure 3. First consider the left-hand panel, which shows results for the first dimension, which corresponds to ideology on economic policy matters. Over a century and a half, there has been a slow but steady transformation in the representatives

Figure 3: Effect of College Establishment on Congressional Ideology



Notes: The outcome variables are the NOMINATE scores (1st and 2nd dimension) of the member of Congress representing locations that are winners and runners-up in the college location experiments. Points show estimates from within-experiment regressions, run separately for each 2-year congress, with robust 95% confidence intervals. The sloping lines show estimates from linear regressions that allow for a linear interaction between time and treatment.

elected in places with colleges. In the late 19th and early 20th century, winning locations tended to be represented by members of Congress who were more conservative on economic issues. The exact estimate fluctuates year-to-year, but hovers around 0.05 on the NOMINATE scale, representing about a fifth of a standard deviation.¹² Beginning around the middle of the 20th century, the differences shrink and there is a relatively precisely estimated null effect on the first dimension NOMINATE score from around 1930 to 1970. Beginning in the mid-1970s, winning locations tended to be represented by slightly more economically liberal members of Congress, in a reversal of the pattern documented a century earlier.

The right-hand panel shows results for the second dimension of NOMINATE. The middle of the 20th century was an era of low partisan polarization and, as we just documented, minimal differences in economic policy preferences among those representing districts with

¹²The within-congress standard deviation of first-dimension NOMINATE scores is usually around 0.35 to 0.40.

and without colleges. However, there is suggestive evidence that these representatives differed on racial issues. From around 1930 onward, members representing winning locations tend to be more liberal on the second dimension of NOMINATE. This dimension generally captured intraparty conflict over race and civil rights — especially dividing racially liberal and conservative (Southern) Democrats. These effects are small and imprecisely estimated in any given Congress, but the point estimates are stable over time.

These results provide suggestive evidence that places with colleges elected more racially progressive representatives. This would accord with notions of universities as fostering tolerance and cosmopolitan social views (Apfeld et al., 2024), along with observational evidence that those with college degrees have long been more liberal on issues of race and civil rights, even before the emergence of an education gap in voting (Marble, 2024). It also reflects the fact that college students played an important role in the Civil Rights Movement (Carson, 1981; Cohen and Snyder, 2013).

Overall, then, we find evidence that communities with colleges are represented differently in Congress than runner-up communities. Through the 20th century, these differences primarily manifest on legislative behavior over race and civil rights — not economic policy. However, in more recent decades, colleges push communities toward Democrats in presidential elections and toward more economically liberal congressional representatives.

5 Policy Attitudes

Finally, we investigate how colleges affect local policy attitudes. To complement the aggregate electoral and ideological findings above, we use individual-level survey data from the Cooperative Election Study (CES) to examine whether residents of counties with a college differ from those in runner-up counties in their policy preferences (Kuriwaki, 2024; Dagonel, 2021). We observe attitudes on six policy domains: immigration, government spending, environmental regulation, abortion, and gay rights. For all but two domains (race and gay rights), we observe multiple indicators, for a total of 18 outcomes.

The CES includes county-level identifiers for all respondents, which we use to match respondents to the site selection data. The data were collected between 2007 and 2023, with the exact years varying across outcomes. We restrict the sample to respondents who live in either a winner or runner-up county, which, depending on the outcome variable, leaves us with samples between 20,000 and 70,000 respondents (average $N \approx 44,400$). Appendix E includes more details about the survey items.

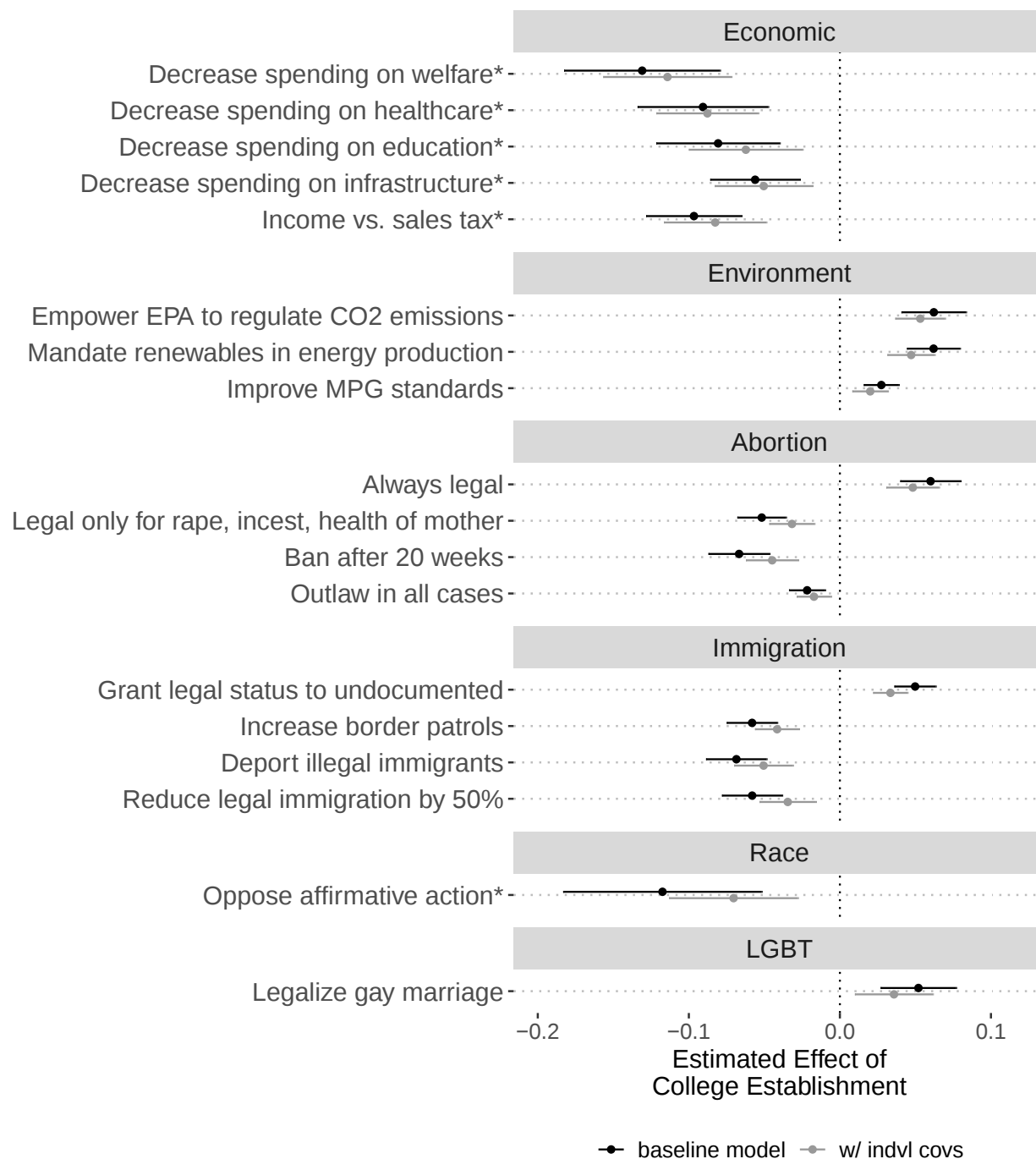
We take the same analysis strategy as we did when analyzing GSS data. We regress survey responses on an indicator for living in a winning county, plus experiment fixed effects and survey year fixed effects. Our main specifications do not control for individual-level covariates. The reason is that the treatment is assigned at the county level, and the establishment of a college influences the demographic composition of the area. Controlling for individual-level covariates thus has the possibility of inducing post-treatment bias. That said, models with individual-level covariates are useful for understanding the extent to which the overall treatment effects can be accounted for by compositional differences across treated and control counties. To that end, we also present estimates that control for age, race, gender, educational attainment, and family income.¹³

Figure 4 presents the results graphically, showing the point estimates and 95% confidence intervals, grouped by policy domain. Most outcomes are dichotomous, and coefficients can be interpreted as changes in the probability of supporting the specified policy. Several policies, denoted by asterisks in the figure, were measured using support/oppose Likert scales. For these outcomes, we present coefficients standardized by the control group standard deviation.

Across domains, people who live in college counties express more liberal policy opinions than those living in runner-up counties. Begin at the top of the figure, which shows respondents' government spending priorities. Those in college counties are significantly more likely to express support for spending across the board. For example, on average people in

¹³The CES data allow us to include a richer set of individual-level covariates than was possible in our analysis of the GSS data above. Specifically, the GSS data lack meaningful household income data and a Hispanic identifier.

Figure 4: Effect of College Establishment on Public Opinion



Notes: Point estimates and 95% confidence intervals from regressions of policy attitudes on an indicator for living in a county that won a college site selection. Individual-level control variables include age, race, gender, education, and family income. All estimates include experiment fixed effects and survey year fixed effects. Standard errors clustered by county. * indicates standardized coefficients for Likert scale outcomes; all others represent changes in probability for binary outcomes. Data source: Cooperative Election Survey

college counties express 13% of a standard deviation higher support for expanding welfare spending than those in runner-up counties. For other spending areas, such as healthcare, education, and infrastructure, the estimates are slightly smaller — around 5 to 10% of a standard deviation for most outcomes — but still significant.

In other policy areas, the results are similar. To highlight a few estimates, people in winning counties are:

- 6 percentage points more likely to support renewable energy mandates (relative to a control group mean of 67%)
- 6 percentage points more likely to agree that abortion should always be legal as a matter of choice (control mean: 60%)
- 5 percentage points more likely to support granting legal status to undocumented immigrants who meet certain criteria (control mean: 56%)
- 12% of a SD less opposed to affirmative action in hiring and admissions
- 5 percentage points more likely to support legalized gay marriage (control mean: 57%)

The gray points in Figure 4 present estimates that control for individual-level sociodemographic covariates. If we were to observe null results for these models, it would provide evidence that the treatment effects are driven by compositional differences between winning and runner-up counties. That is not what we find. People who live in college counties are significantly more liberal on these policy domains, even after accounting for differences in demographic composition.

Lastly, we examine partisan identification and self-reported ideology using the CES data. In the top panel of Table 3, we estimate that people who live in college counties are about 4 percentage points more likely to identify as Democrats and 3 percentage points less likely to identify as Republicans than those living in runner-up counties. We also find that they place

Table 3: Effect of College Establishment on Partisan Identification and Ideology**(a)** Aggregate Treatment Effects Among All Respondents

	Democratic ID	Republican ID	Ideology
	(1)	(2)	(3)
Treatment	0.04*** (0.01)	-0.03*** (0.01)	-0.21*** (0.03)
Experiment FEs	✓	✓	✓
Year FEs	✓	✓	✓
N	89,971	89,971	83,595
N Experiments	63	63	63
N Survey Years	18	18	18
R^2	0.02	0.02	0.04

(b) Within-Education-Group Comparisons

	Democratic ID	Republican ID	Ideology
	(1)	(2)	(3)
Treatment $\times$ Less Than College	0.02 (0.01)	-0.01 (0.01)	-0.11*** (0.02)
Treatment $\times$ College Degree	0.06*** (0.01)	-0.05*** (0.01)	-0.22*** (0.04)
Sample	Non-Students	Non-Students	Non-Students
Individual Controls	✓	✓	✓
Experiment $\times$ College Attainment FEs	✓	✓	✓
Survey Year $\times$ College Attainment FEs	✓	✓	✓
N	57,698	57,698	53,440
N Experiment $\times$ College	126	126	126
N Survey Year $\times$ College	34	34	34
R^2	0.10	0.08	0.10
p -value for H_0 : No Heterogeneity	< 0.01	< 0.01	< 0.01

Notes: Outcomes are binary indicators for identifying as Democrats or Republicans (vs. anything else) and ideological self-placement on a 1 to 5 liberal-conservative scale. The treatment variable is an indicator for living in a college county, relative to a runner-up county. The top panel pools all respondents. The bottom panel compares people with similar education levels (four-year college degree vs. less than four-year degree) in treated and control counties and includes additional individual-level controls for age (dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older), race (white, Black, Asian, Hispanic/Latino, and other), gender, and family income. The p -value in the bottom row of the bottom panel refers to a Wald test of equality of the two treatment coefficients. Robust standard errors clustered by county. Data source: Cooperative Election Survey. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

themselves about 0.21 points lower on a 1-5 liberal-conservative scale (where lower numbers indicate more liberal ideologies).

Our final analysis in the bottom panel of Table 3 aims to shed further light on the extent to which these results are driven by compositional differences across treatment and control counties. In this panel, we restrict the sample to respondents who are not currently students, then estimate models that include experiment-by-education-level fixed effects, plus additional individual-level covariates. These models thus estimate within-experiment differences between people in treatment and control counties who have the same level of educational attainment, allowing these differences to vary by education level.

We find that the aggregate differences between treatment and control counties are driven primarily, but not exclusively, by those with college degrees. People with college degrees living in winning counties are about 6 percentage points more likely to identify as Democrats and 5 percentage points less likely to identify as Republicans, as compared to people with college degrees living in runner-up counties. In contrast, people without degrees have similar levels of partisanship in both winning and runner-up counties. However, when examining ideological self-placement, we find that both those with and without college degrees are more liberal in winning counties than runner-up counties. The coefficient for those without degrees is roughly half the magnitude compared to those with degrees, but is statistically significant.

The results that control for respondent-level variables should be seen as descriptive: treatment is assigned at the geographic level, not the individual level, so there could be sorting into locations based on treatment. Still, they are informative about the role that demographic composition plays in generating differences between places with and without a college. Even when accounting for individual-level demographics, people living in college counties express more liberal policy attitudes and identify as more liberal.

In sum, the establishment of a college appears to have a long-run effect on the policy attitudes of the local population. The shift toward more liberal preferences on cultural, economic, and racial issues is consistent with the growing ideological divergence we observe

in election returns and in the roll-call records of elected representatives.

6 Are Universities Distinctive?

We have shown that places that get a college are politically and socially different than runner-up locations. We have also shown that these effects are not primarily driven by differences in demographic composition between these sets of locations. One outstanding question is whether the effects we document would be present for any large public investment, or whether there is something distinctive about universities. It is possible that any sufficiently large place-based policy — such as the location of a state capital or the opening of another large institution — might have similar effects on the trajectory of a location. One plausible mechanism could be a population effect as denser places tend to be more liberal (Rodden, 2019).

To probe this possibility, we analyze a subset of site selection experiments in which the runner-up location received a “consolation prize.” In these 12 cases, the siting of universities was decided simultaneously with the siting of other public institutions. These institutions — which include state capitals, prisons, and asylums — were historically valued for their potential to be anchor institutions. Consistent with this expectation, Andrews (2023) finds similar effects of getting a college versus an alternative institution on county-level population. Conversely, Russell, Yu and Andrews (2024) find that colleges uniquely affect the educational attainment of their communities.

We re-estimate all of our models using this consolation prize subsample, thereby comparing college counties that received another large public investment. If universities are distinctive, we should continue to see effects of similar size to those in the full sample.

We present these results in Appendix F. Broadly, we find evidence that universities are indeed distinctive in generating most of the outcomes we study. First, we find that the effect of colleges on social capital — as measured by the Facebook data from Chetty et al. (2022a) — is slightly larger for the consolation prize sample as for the full sample (Table

F10). Second, we find the same effect of colleges on Democratic vote share in presidential elections (Figure F5). Third, the effects of colleges on political attitudes are just as large — or potentially even larger — in the consolation prize sample as in the full sample (Figure F4).

One exception to this general pattern of distinctiveness of universities comes in our turnout estimates. We find a much smaller effect of college establishment on turnout when the control group is restricted to the consolation prize counties (Figure F6a) and similar null effects on turnout rates (Figure F6b). These findings are consistent with the turnout results being driven primarily by an increased population, since the consolation prize locations also see increases in population (Andrews, 2023).

Overall, these results are consistent with universities having distinctive effects on the social and political climate in their communities. The establishment of a college puts communities on a long-run trajectory toward more social capital and social trust. They also push communities in a liberal direction in elections and in public opinion, at least by the 21st century.

7 Discussion and Conclusion

In this paper, we examine the long-run effects of the establishment of colleges and universities on civic and political life in the United States. Social theorists and education advocates have long pointed to the role of higher education in promoting good citizenship. And contemporary observers have noted that universities act as anchor institutions, providing employment, economic development, social and educational events. These observations suggest that colleges may have important civic benefits, fostering social capital in their communities. Additionally, as education increasingly divides Democrats from Republicans in the electorate, we examine the aggregate-level implications of colleges for political representation of their communities.

To isolate the causal effect of colleges on community-level outcomes, we use a quasi-experimental design that leverages site selection experiments — where comparable locations

for universities were considered but only some were ultimately chosen for essentially random reasons. We pair these site-selection experiments with an array of data, including social capital data derived from online social networks, survey data on social trust, data on presidential election turnout and vote share, and the ideology of members of Congress.

We find that colleges have significant effects on the social capital of their communities. Relative to runner-up locations, places with colleges: (1) have higher rates of volunteering and a higher density of civic organizations; (2) have higher levels of generalized social trust; and (3) cast more votes in elections. Colleges thus contribute to the social climate of their communities, increasing their political power and potentially their capacity for collective action.

We also document divergences in political preferences and representation between places with and without colleges. In the 21st century, college counties are increasingly voting for Democratic presidential candidates — even as there were minimal differences in voting patterns in most 20th-century presidential elections. What explains this growing divergence? This trend reflects the growing education gap in voting, which over the past 25 years has become one of the most salient divides in the electorate. While differences in presidential elections have emerged more recently, we also find that members of Congress representing college districts were distinctive from the 1930s onward. During the mid-century, these representatives voted in support of civil rights at a higher rate. And since the 1970s, they have supported more economically liberal policies as well.

Individuals living in college counties report more liberal policy preferences across a broad range of issues, including economic, environmental, abortion, immigration, race, and LGBT rights. These differences persist even when controlling for individual demographic differences. Consistent with the results on voting in recent presidential elections, individuals in college counties are more likely to identify as Democrats and report a more liberal ideology. While we find party polarization is larger in college counties only for the college educated, even those without a college degree report more liberal ideologies.

Our findings contribute to the broader understanding of how institutions shape long-term community development. Prior research has focused on the economic effects of universities, demonstrating their role in job creation, innovation, and economic mobility. We extend this literature by demonstrating that universities also shape civic culture and political dynamics. The presence of a university not only bestows local economic benefits, but also fosters a more engaged and civically active community.

These findings also have implications for contemporary debates on higher education and democracy. The second Trump administration has slashed funding for scientific research and is contemplating taxes on university endowments (Knott, 2025). Universities have responded by implementing hiring freezes and reforming or eliminating programs the administration sees as ideologically suspect (Gretzinger et al., 2025). Our results offer a new perspective on the political polarization of higher education: as long-standing civic institutions, colleges shape the political and social fabric of their communities. While these communities are more liberal, they also exhibit higher levels of social capital and civic engagement as long-run effects of local universities. Cuts to public support for these institutions thus risk eroding the civic infrastructure that underpins democratic life.

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A List of Site Selection Experiments

College	Year of Experiment	County	Consolation Prize
University of Missouri	1839	Boone, MO	
University of Mississippi	1841	Lafayette, MS	
Eastern Michigan University	1849	Washtenaw, MI	
The College of New Jersey	1855	Mercer, NJ	
Pennsylvania State University	1855	Centre, PA	
University of California Berkeley	1857	Alameda, CA	
Iowa State University	1859	Story, IA	
University of South Dakota	1862	Clay, SD	✓
University of Kansas	1863	Douglas, KS	✓
Lincoln College (IL)	1864	Logan, IL	
Cornell University	1865	Tompkins, NY	✓
University of Maine	1866	Penobscot, ME	
University of Wisconsin	1866	Dane, WI	
University of Illinois	1867	Champaign, IL	
West Virginia University	1867	Monongalia, WV	✓
Oregon State University	1868	Benton, OR	✓
Southern Illinois University	1869	Jackson, IL	
Purdue University	1869	Tippecanoe, IN	
University of Tennessee	1869	Knox, TN	
Louisiana State University	1870	Eastbatonr, LA	
Missouri University of Science and Technology	1870	Phelps, MO	
University of Arkansas	1871	Washington, AR	
Texas A&M University	1871	Brazos, TX	
Auburn University	1872	Lee, AL	
University of Oregon	1872	Lane, OR	
Virginia Polytechnic Institute	1872	Montgomery, VA	
University of Colorado	1874	Boulder, CO	✓
University of Texas Medical Branch	1881	Galveston, TX	
University of Texas Austin	1881	Travis, TX	
North Dakota State University	1883	Cass, ND	✓
University of North Dakota	1883	Grandforks, ND	✓
University of Arizona	1885	Pima, AZ	✓
University of Nevada	1885	Washoe, NV	
Georgia Institute of Technology	1886	Fulton, GA	
Kentucky State University	1886	Franklin, KY	
North Carolina State University	1886	Wake, NC	

University of Wyoming	1886	Albany, WY	✓
Utah State University	1888	Cache, UT	✓
University of Idaho	1889	Latah, ID	
New Mexico State University	1889	Donaana, NM	✓
Clemson University	1889	Pickens, SC	
Alabama Agricultural and Mechanical University	1891	Madison, AL	
University of New Hampshire	1891	Strafford, NH	
Washington State University	1891	Whitman, WA	
North Carolina A&T University	1892	Guilford, NC	
Northern Illinois University	1895	Dekalb, IL	
Western Illinois University	1899	Mcdonough, IL	
Western Michigan University	1903	Kalamazoo, MI	
University of Nebraska at Kearney	1903	Buffalo, NE	
University of Florida	1905	Alachua, FL	
University of California Davis	1906	Yolo, CA	
Georgia Southern College	1906	Bulloch, GA	
East Carolina University	1907	Pitt, NC	
Western State Colorado University	1909	Gunnison, CO	
Southern Arkansas University	1910	Columbia, AR	
Arkansas Tech University	1910	Pope, AR	
Southern Mississippi University	1910	Forrest, MS	
Kent State University	1910	Portage, OH	
Bowling Green State University	1910	Wood, OH	
Southern Methodist University	1911	Dallas, TX	
Texas Tech	1923	Lubbock, TX	
US Merchant Marine Academy	1941	Nassau, NY	
US Air Force Academy	1954	El Paso, CO	

B Balance Tests for Site Selection Experiments

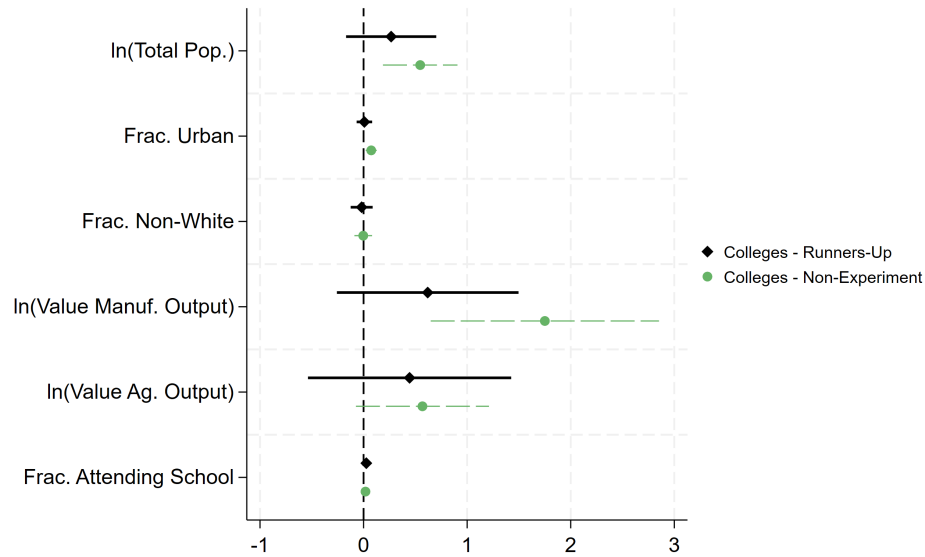
In this section, we present additional details on the college site selection experiments, using historical economic and demographic data from the National Historical Geographic Information System (Manson et al., 2022).

Figure B1 compares college counties to runner-up counties in the last census prior to the establishment of each university. In this cross sectional comparison, college and runner-up counties tend to be quite similar, while the college counties tend to be quite different from the average non-runner-up county in the same state, which we refer to as the “non-experiment counties.” Figure B2 shows that the college and runner-up counties are evolving with similar trends prior to the establishment of the college as well. To enhance readability, we omit error bars in this figure; college and runner-up counties are not statistically different from one another in any of the years before the establishment of the college. Collectively, these results give additional confidence that our research designs identify the causal effect of colleges on local outcomes.

Table B2 presents balance checks using data from the two presidential elections prior to college establishment. We find that winning counties cast slightly more votes on average in the prior two elections, though this difference is not statistically significant. There is essentially no difference in Democratic vote share in the election directly prior to the establishment of a college, though there is a small difference of around 4 percentage points two elections prior to college establishment ($p < 0.05$).

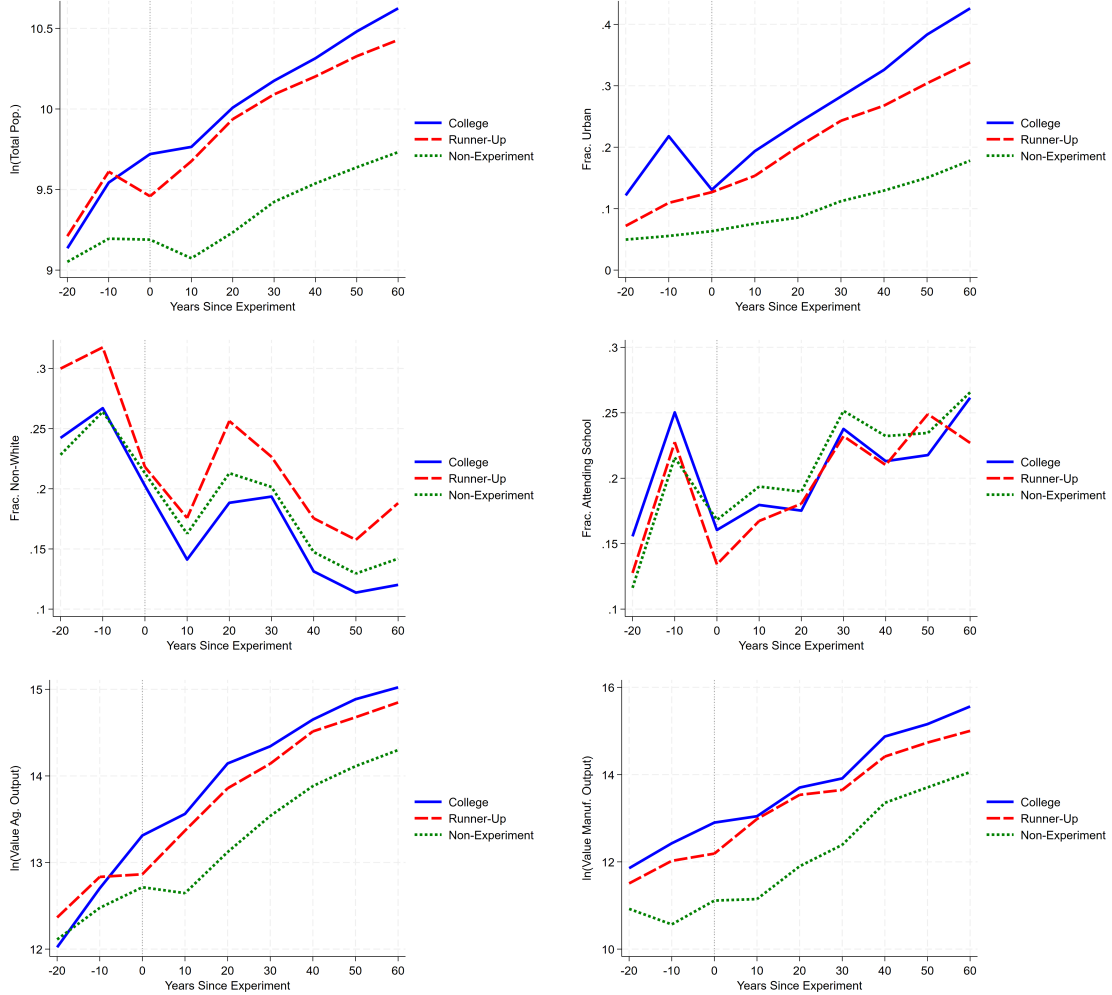
Due to this slight imbalance, we re-estimate the main election outcome regressions while controlling for Democratic vote share in the two elections prior to the site selection experiment. The results, presented in Figure B3, are nearly identical to the results in the main text (Figure 2).

Figure B1: Balance Checks Comparing Universities to Runner-Up Counties in the Last Census Before the Universities Were Established



Notes: Black diamonds show the difference in means between university and runner-up counties in the last census year before each site selection experiment for various demographic and economic variables. Green circles show the difference in means between the university counties and all other non-runner-up counties in the same state in the last census before each site selection experiment. 95% confidence intervals are displayed. Demographic and economic data are from the National Historical GIS (Manson et al., 2022). In some cases, NHGIS data for a particular demographic or economic variable is not available in the last census before a college was established; in these cases we use data from the next earlier census. Even after this correction, not all variables are available for years before the college is established for all of the colleges, and so the sample is not balanced across rows.

Figure B2: Trends in University and Runner-Up Counties for Selected Observable Characteristics



Notes: Time series for various demographic and economic variables. Blue solid lines plot time series for the university counties. Red dotted lines plot time series for the runner-up counties. Green dashed lines plot time series for non-university, non-runner-up counties in the same state. The x-axis plots years since the university site selection experiment occurred. Demographic and economic data are from the National Historical GIS (Manson et al., 2022).

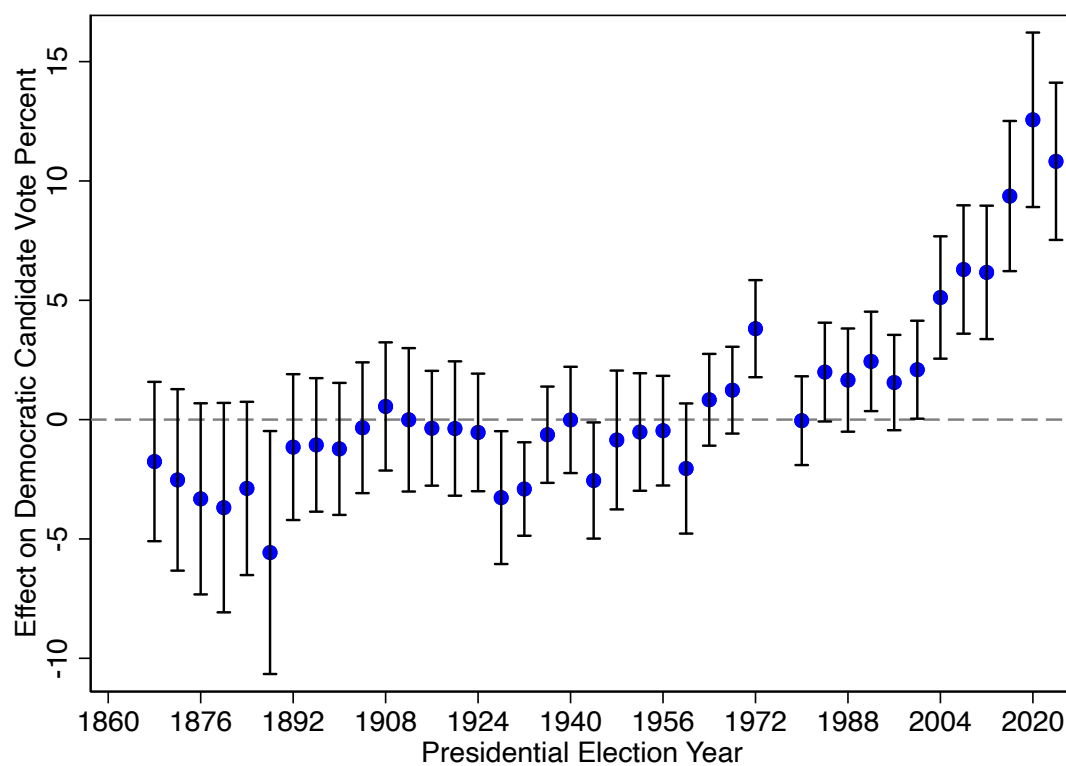
Table B2: Balance Checks Comparing Universities to Runner-Up Counties in the Prior Two Presidential Elections Universities Are Established

VARIABLES	(1) Dem % (t-1)	(2) N Votes (t-1)	(3) Dem % (t-2)	(4) N Votes (t-2)
treatment	-0.948 (1.804)	755.6 (1,152)	4.021** (1.640)	684.2 (948.0)
Constant	51.54*** (1.050)	7,201*** (759.5)	48.27*** (0.939)	7,172*** (650.2)
Observations	155	152	132	132
R-squared	0.729	0.942	0.835	0.955

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure B3: Effect of College Establishment on Democratic Vote Share in Presidential Elections, Controlling for Baseline Vote Share



Notes: The outcome variable is county-level vote share for the Democratic Party candidate in each election. Points show estimates from within-experiment regressions, run separately for each election year. Bars show robust 95% confidence intervals. Regressions control for experiment fixed effects and the county-level Democratic vote share in the two presidential elections prior to the year of the site selection experiment. Analogous results without these controls are presented in the main text Figure 2.

C GSS Question Wording

Social Trust Questions

- Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? [binary outcome: most people can be trusted; other/depends coded as missing]
- Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair? [binary outcome: people try to be fair; depends coded as missing]
- Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves? [binary outcome: people try to be helpful; depends coded as missing]
- (Would you use this card and tell me which answer comes closest to how often you do the following things...) Spend a social evening with someone who lives in your neighborhood? [outcome: 1-7 scale; 1 = almost daily; 7 = never]
- (Would you use this card and tell me which answer comes closest to how often you do the following things...) Spend a social evening with friends who live outside the neighborhood? [outcome: 1-7 scale; 1 = almost daily; 7 = never]
- From time to time, most people discuss important matters with other people. Looking back over the past six months - who are the people with whom you discussed important matters to you? Just tell me their first names or initials. [outcome: number of names given defined as number of close friends; top coded at 6]
- (Please tell me whether you strongly agree ...or strongly disagree with the following statements:) These days people need to look after themselves and not overly worry about others. [binary outcome: disagree or strongly disagree]
- (Please tell me whether you strongly agree ...or strongly disagree with the following statements:) Personally assisting people in trouble is very important to me. [binary outcome: agree or strongly agree]
- (During the past 12 months, how often have you done each of the following things:) Carried a stranger's belongings, like groceries, a suitcase, or shopping bag. [binary outcome: carried belongings at least once]
- (During the past 12 months, how often have you done each of the following things:) Looked after a person's plants, mail, or pets while they were away. [binary outcome: looked after plant or pet while person was away at least once]

D Other GSS Outcomes

In the main text, we used measures of social trust and social capital from the General Social Survey. Here we report analyses of several other outcomes measured in the GSS, namely: attitudes towards education and science, self-assessed political knowledge, social policy preferences, and civic engagement. Within each of these categories, we selected survey questions with the largest number of non-missing observations. Responses to various questions within a category are highly correlated for a respondent, so rather than thinking of each outcome as an independent outcome, one should think of the list of outcomes as closely related measures or proxies for roughly the same concepts. See Appendix H for results tables that report all coefficients, including control variables.

Starting with attitudes towards education and science in Tables D3 and D4, we find college county residents are more likely to express “a great deal” as opposed to “some”, “very little” or “hardly any” confidence in schools and the education system. They are also more likely to express agreement with the view that science makes life better. Due to small sample sizes, most of the confidence intervals cannot rule out modestly large effects for other outcomes. For example, our results for agreement with the statement “we need to spend more on scientific research” cannot rule out increases as large as 4 percentage points (relative to a control mean of 41%). We similarly find no consistent statistically significant differences in self-assessed civic knowledge (Table D5) except that college county respondents indicate they are slightly less informed on economic policy issues. For the club or organizational membership outcome (Appendix Table D6), we cannot rule out effects as large as those from the social capital data in Chetty et al. (2022*b*) presented in Section 3.

We do, however, find that respondents in college counties are more likely to identify as Democrats and are less conservative (Table D7). This finding is consistent with the aggregate-level election results that we present in Section 4.1.

We also find that residents of college counties express much more support for progressive social policies including a belief that the government should help the poor, pay for medical care, aid blacks, and generally do more. Because social policies views differ generationally and across education groups on average, in column (2) we test whether the effects are robust to controlling for education level, age, gender, and race. The estimates barely change, indicating that there is a more general shift towards support for progressive social policies in college counties that cannot be explained simply by a younger or more educated population.

Table D3: Attitudes Towards Education in the GSS

	N	Control Mean	(1)	(2)
Great Deal of Confidence in Ed	3185	0.27	0.05** (0.02)	0.05** (0.02)
Should Spend More on Education	602	0.81	0.00 (0.04)	0.02 (0.04)
Fixed Effects: Experiment			✓	✓
Fixed Effects: Year			✓	✓
Individual Controls				✓

Notes: The control mean reports the mean response across residents in control (runner-up) counties. Columns 1-2 show the estimated coefficient on living in a “winner” county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses.

Table D4: Attitudes Towards Science in the GSS

	N	Control Mean	(1)	(2)
Thinks Big Bang is True	926	0.60	-0.01 (0.03)	-0.02 (0.03)
Believes in Human Evolution	925	0.54	0.09 (0.04)	0.05 (0.04)
Science Makes Life Better	1442	0.86	0.04** (0.02)	0.03** (0.02)
Science Will Solve Environ Probl	581	0.28	-0.06 (0.06)	-0.01 (0.07)
Science Gives Opportunities	1210	0.91	0.00 (0.03)	0.00 (0.03)
Science Makes Life Change Too Fast	1197	0.45	0.05 (0.04)	0.06 (0.04)
We Trust Science Too Much	526	0.38	0.06 (0.05)	0.09** (0.04)
Need to Spend More on Sci Research	2562	0.41	0.00 (0.02)	0.00 (0.02)
Very Interested in Technologies	974	0.41	-0.03 (0.02)	-0.02 (0.03)
Fixed Effects: Experiment			✓	✓
Fixed Effects: Year			✓	✓
Individual Controls				✓

Notes: The control mean reports the mean response across residents in control (runner-up) counties. Columns 1-2 show the estimated coefficient on living in a “winner” county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses.

Table D5: Self-Assessed Civic Knowledge in the GSS

	N	Control Mean	(1)	(2)
Often Read News (1-5 scale)	3172	2.57	0.01 (0.08)	0.07 (0.06)
How Informed Foreign Policy (1-5 scale)	234	2.75	-0.46 (0.28)	-0.48 (0.32)
How Informed Econ Policy (1-5 scale)	234	2.73	-0.48** (0.20)	-0.53** (0.25)
Fixed Effects: Experiment			✓	✓
Fixed Effects: Year			✓	✓
Individual Controls				✓

Notes: The control mean reports the mean response across residents in control (runner-up) counties. Columns 1-2 show the estimated coefficient on living in a “winner” county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses.

Table D6: Civic Engagement

	N	Control Mean	(1)	(2)
Member of Club or Organization	384	0.42	0.16 (0.12)	0.10 (0.06)
Volunteered in Past Year	943	0.45	0.04 (0.05)	0.02 (0.04)
Interest in Politics (1-5 scale)	600	2.87	-0.16 (0.14)	-0.04 (0.16)
Fixed Effects: Experiment			✓	✓
Fixed Effects: Year			✓	✓
Individual Controls				✓

Notes: The control mean reports the mean response across residents in control (runner-up) counties. Columns 1-2 show the estimated coefficient on living in a “winner” county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses.

Table D7: Political Outcomes in the GSS

	N	Control Mean	(1)	(2)
Identify as Republican	5184	0.27	-0.01 (0.02)	-0.02** (0.01)
Identify as Independent	5184	0.39	-0.05** (0.02)	-0.04*** (0.02)
Identify as Democrat	5184	0.32	0.05** (0.02)	0.05*** (0.01)
Voted in Presidential Election	4800	0.71	0.04* (0.03)	0.01 (0.02)
How Conservative (1-7 scale)	4603	4.17	-0.20*** (0.07)	-0.17** (0.07)
Fixed Effects: Experiment			✓	✓
Fixed Effects: Year			✓	✓
Individual Controls				✓

Notes: The control mean reports the mean response across residents in control (runner-up) counties. Columns 1-2 show the estimated coefficient on living in a “winner” county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses.

Table D8: Views on Social Policy

	N	Control Mean	(1)	(2)
Gov Should Reduce Income Disparities	770	0.49	0.09** (0.04)	0.09* (0.05)
Gov Should Help Poor	2953	0.71	0.05** (0.02)	0.06** (0.02)
Gov Should Do More	2898	0.26	0.06*** (0.02)	0.06** (0.02)
Gov Should Pay for Medical Care	2957	0.82	0.05*** (0.01)	0.05*** (0.01)
Gov Should Aid Blacks	2909	0.17	0.10*** (0.02)	0.10*** (0.02)
Fixed Effects: Experiment			✓	✓
Fixed Effects: Year			✓	✓
Individual Controls				✓

Notes: The control mean reports the mean response across residents in control (runner-up) counties. Columns 1-2 show the estimated coefficient on living in a “winner” county for each outcome. The control mean reports the mean response across residents in control (runner-up) counties. All regressions include fixed effects for the site selection experiment, to ensure within-experiment comparison. Education controls are dummies for less than high school (<12 years of education), high school graduate (12-13 years of education), community college (14-15 years of education), or four-year college (16+ years of education). Age controls are dummies for 18-24, 25-34, 35-44, 45-54, and 65 or older. Race categories are black, white, or other. Control for gender is an indicator for female. Standard errors clustered by county are in parentheses.

E CES Question Summary

Table E9: Summary of CES Questions and Coverage

Category	Question	Num. Years	Min. Year	Max. Year	Total N
Immigration	Grant legal status to undocumented	14	2007	2023	70,028
Immigration	Increase border patrols	14	2007	2023	70,016
Immigration	Deport illegal immigrants	4	2014	2017	21,188
Immigration	Reduce legal immigration by 50%	4	2018	2022	27,748
Abortion	Always legal	10	2014	2023	56,227
Abortion	Legal only for rape, incest, health of mother	10	2014	2023	56,161
Abortion	Ban after 20 weeks	9	2014	2022	52,652
Abortion	Outlaw in all cases	7	2015	2021	36,310
LGBT	Legalize gay marriage	5	2012	2016	28,394
Race	Oppose affirmative action*	7	2008	2014	34,613
Econ	Decrease spending on welfare*	5	2014	2022	35,667
Econ	Decrease spending on healthcare*	5	2014	2022	35,681
Econ	Decrease spending on education*	5	2014	2022	35,674
Econ	Decrease spending on infrastructure*	5	2014	2022	35,654
Econ	Income vs. sales tax*	12	2006	2020	43,822
Environment	Empower EPA to regulate CO2 emissions	10	2014	2023	55,027
Environment	Mandate renewables in energy production	10	2014	2023	55,069
Environment	Improve MPG standards	8	2014	2022	49,004

Notes: All outcomes are dichotomous except for those marked with an asterisk, which are Likert-style items with 4 or 5 points. In analyses of these items we present standardized coefficients. Exact question wording varies slightly year to year; see Dagonel (2021).

F Consolation Prize Results

This section contains supplemental analyses comparing college counties with runner-up counties that received a consolation prize. In these cases, the control counties became home to public institutions such as state capitals, prisons, asylums, and large public works. These results help identify whether universities are distinctive from other large public investments. There are 12 site selection experiments that included a consolation prize.

Figure F10 shows results for the civic engagement outcomes sourced from Chetty et al. (2022a). For these outcomes, we find treatment effects that are slightly larger for the consolation prize sample than in the main analysis (Table 1). Figure F11 shows results for partisanship and ideology in the CES, which show comparable estimates in the full sample and the consolation prize sample. Figure F4 shows results for public opinion on policy proposals. We generally find *larger* treatment effects in the consolation prize sample than in the full sample on several policy areas, especially economic policy and immigration.

Finally, Figures F5 and F6 show that effects on Democratic vote share and turnout, respectively. We find large effects on vote share, even when comparing college to runner-up locations that received consolation prizes. However, we find much smaller effects on aggregate turnout in the consolation prize sample than in the full sample. Consolation prize counties saw comparable increases in population as college counties (Andrews, 2023). Together with our null finding on turnout rate in both the full sample and the consolation prize sample, these results suggest that the increased turnout we document in the main text (Figure 1a) is driven entirely by the increased population of winning counties.

Table F10: Effect of College Establishment vs. Consolation Prize on Civic Engagement

	(1)	(2)
	Facebook Volunteering Rate	Facebook Civic Organizations
Winning Location	0.0256* (0.0134)	0.0059* (0.0032)
Control Mean	.0712	.0177
Counties	26	26
Experiments	12	12

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

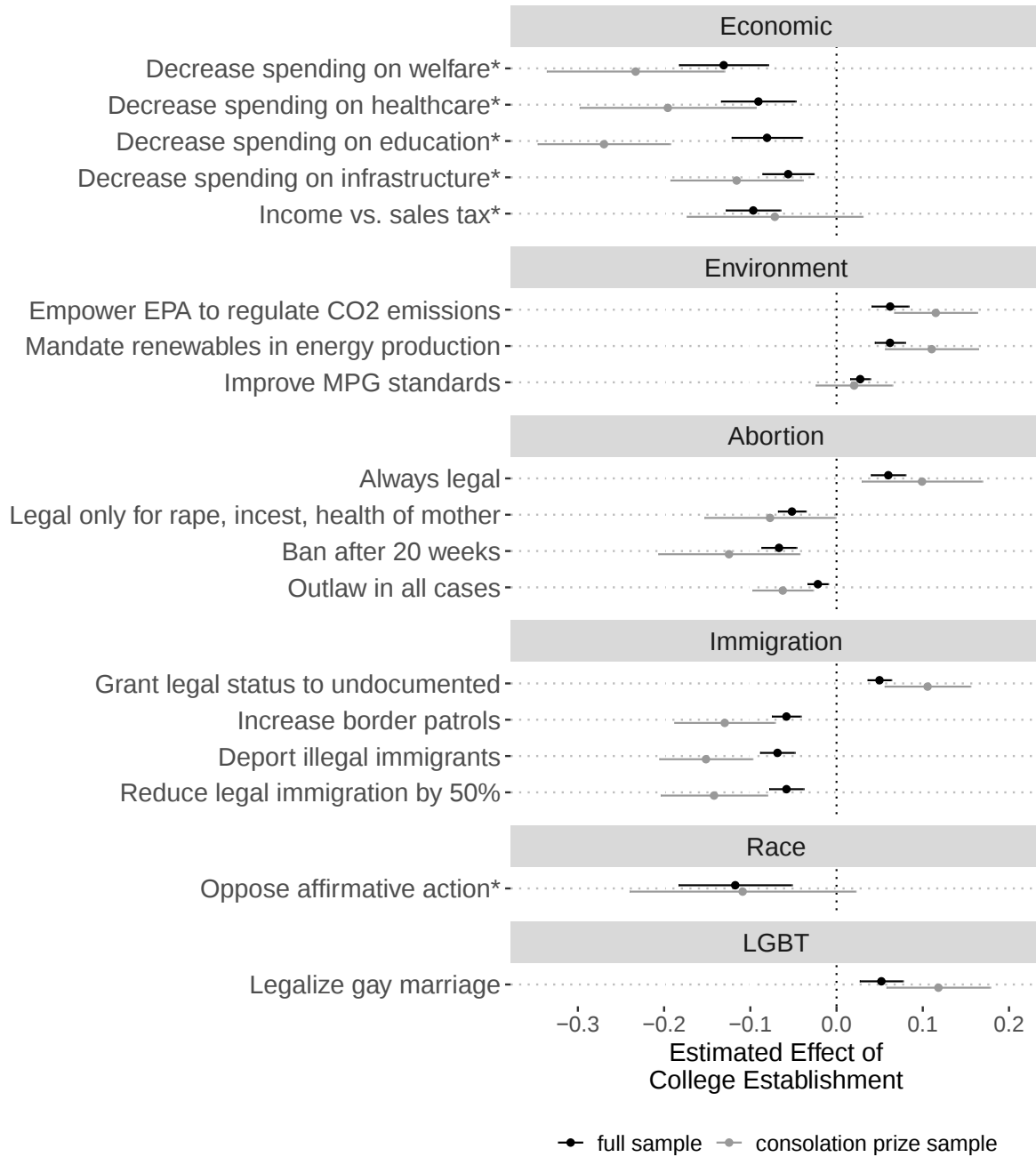
Notes: The volunteering rate is the percentage of Facebook users in the county who are members of a group which is predicted to be about “volunteering” or “activism” based on group title and other group characteristics. Some noise is added to protect privacy. The number of civic organizations in the county is the number of Facebook Pages predicted to be “Public Good” pages based on page title, category, and other page characteristics, per 1,000 users in the county. Each page is assigned to a county based on the listed address. Some noise is added to protect privacy. Data source: Chetty et al. (2022b).

Table F11: Effect of College Establishment vs. Consolation Prize on Partisan ID and Ideology

	Democratic ID		Republican ID		Ideology	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment (College)	0.04*** (0.01)	0.07** (0.02)	−0.03*** (0.01)	−0.05 (0.03)	−0.21*** (0.03)	−0.33*** (0.09)
Sample:	Full Sample	Consolation Prize	Full Sample	Consolation Prize	Full Sample	Consolation Prize
Experiment FEs	✓	✓	✓	✓	✓	✓
Year FEs	✓	✓	✓	✓	✓	✓
N	89,971	8,845	89,971	8,845	83,595	8,278
N Experiments	63	12	63	12	63	12
N Survey Years	18	18	18	18	18	18
R^2	0.02	0.02	0.02	0.02	0.04	0.04

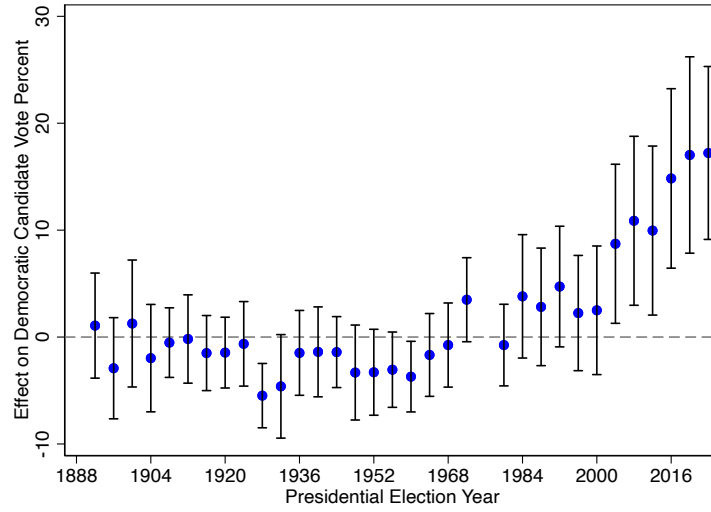
Notes: Outcomes are indicators for identifying as Democrats or Republicans (vs. anything else) (columns 1-4) and ideological self-placement on a 1 to 5 liberal-conservative scale (columns 5-6). Columns 1, 3, and 5 contain the full sample, replicating the main text Table 3, while Columns 2, 4, and 6 restrict the sample to consolation prize counties. Robust standard errors clustered by county. Data source: Cooperative Election Survey. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure F4: Effect of College Establishment vs. Consolation Prize on Public Opinion



Notes: Point estimates and 95% confidence intervals from regressions of policy attitudes on an indicator for living in a county that “won” a college site selection. Black points correspond to the full results presented in the main text. Gray dots correspond to regressions that only include counties that got a “consolation prize” as the control group. Regressions include fixed effects for experiment and for survey year. Standard errors clustered by county. * indicates standardized coefficients for Likert scale outcomes; all others represent changes in probability for binary outcomes. Data source: Cooperative Election Survey

Figure F5: Effect of College Establishment vs. Consolation Prize on Democratic Vote Share

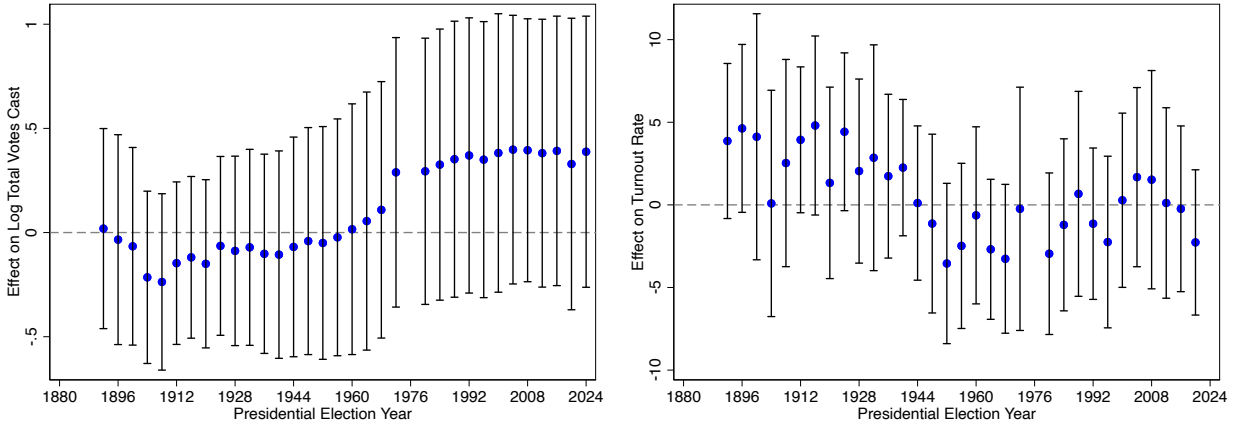


Notes: The outcome variable is county-level vote share for the Democratic Party candidate in each election. Points show estimates from within-experiment regressions, run separately for each election year. Bars show robust 95% confidence intervals. Sample is restricted to cases where the runner-up won a “consolation prize.” Elections restricted to 1892 and later due to small sample sizes in earlier years.

Figure F6: Effect of College Establishment vs. Consolation Prize on Election Turnout

(a) Number of Votes

(b) Turnout Rate (% of VAP)



Notes: The outcome variables are log total votes (left) and turnout as a share of the voting age population (right), measured at the county level, in each presidential election. Points show estimates from within-experiment regressions, run separately for each election year. Bars show robust 95% confidence intervals.

G Event Study Analysis of Elections

In this section, we take an alternative approach to estimating the treatment effect of colleges on election outcomes. Because we observe election outcomes both before and after colleges were established, we can estimate effects using an event study or differences-in-differences approach.

In the main text, we estimate effects in individual elections — e.g., the effect of a college in the 1952 election. The difference-in-difference estimand is slightly different. We exploit the staggered timing in college establishment and estimate dynamic treatment effects relative to the establishment of a college.

Formally, we can define our estimand as the average treatment effect on the treated in a given year, $E[Y_{it}(1) - Y_{it}(0) \mid D_i = 1]$, where $Y_{it}(D_i)$ is the potential outcome in year t for county i if it were assigned to treatment ($D_i = 1$) or control ($D_i = 0$). In the main text, the year t refers to the calendar year of an election. In the event-study, difference-in-differences analysis presented here, the year t refers to the number of elections since the college was established.

We present the calendar-time estimates in the main text for interpretability. The nature of party competition changes over time (due to changes in the candidate positioning), so the meaning of the outcome Y_t depends on calendar time. Nonetheless, this approach imposes stronger assumptions for identification. Identification in the main text relies on an assumption that assignment to treatment and control counties is as good as random — i.e., that it was not systematically related to the units’ potential outcomes.

Alternatively, we can relax that assumption at the expense of a slightly less interpretable outcome variable. In the difference-in-differences approach here, instead we rely on a weaker parallel trends assumption — i.e., that the trajectory of potential outcomes is parallel in treatment and control counties. This assumption allows for baseline differences in the levels between the potential outcomes.

We estimate difference-in-difference models using the `fect` package in R (Liu, Wang and Xu, 2024). Our main differences-in-differences specifications is a two-way fixed effects model of the form

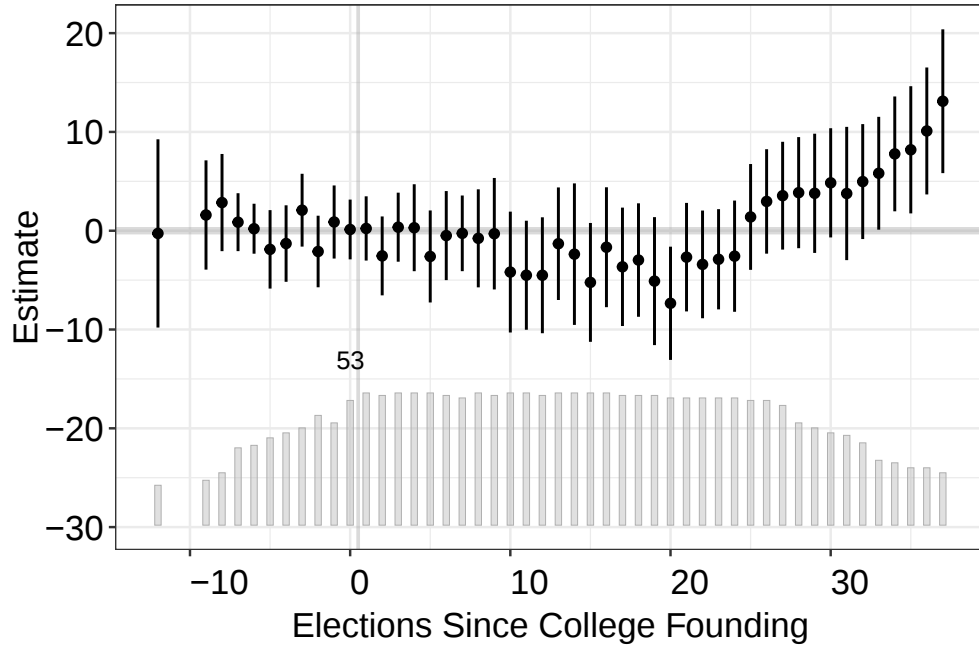
$$Y_{ct} = \tau \text{Winner}_{ct} + \alpha_c + \gamma_t + \varepsilon_{ct},$$

where now Winner_{ct} is a time-varying indicator that takes the value of 1 if county c has a college in it by time t and 0 otherwise. This specification also includes county and time fixed effects, respectively α_c and γ_t .¹ The results using a two-way fixed effects estimator are shown in Figure G7. Results using a matrix completion estimator (Athey et al., 2018) are shown in G8. We first note that in both plots the estimated “treatment effects” in the pre-treatment periods are precisely estimated nulls, lending credibility to the parallel trends assumption. This is unsurprising given the historical record showing that the choice of location was often idiosyncratic.

The results confirm those presented in the main text. We find that there is a positive effect of college establishment on Democratic vote share beginning roughly 25 elections (100

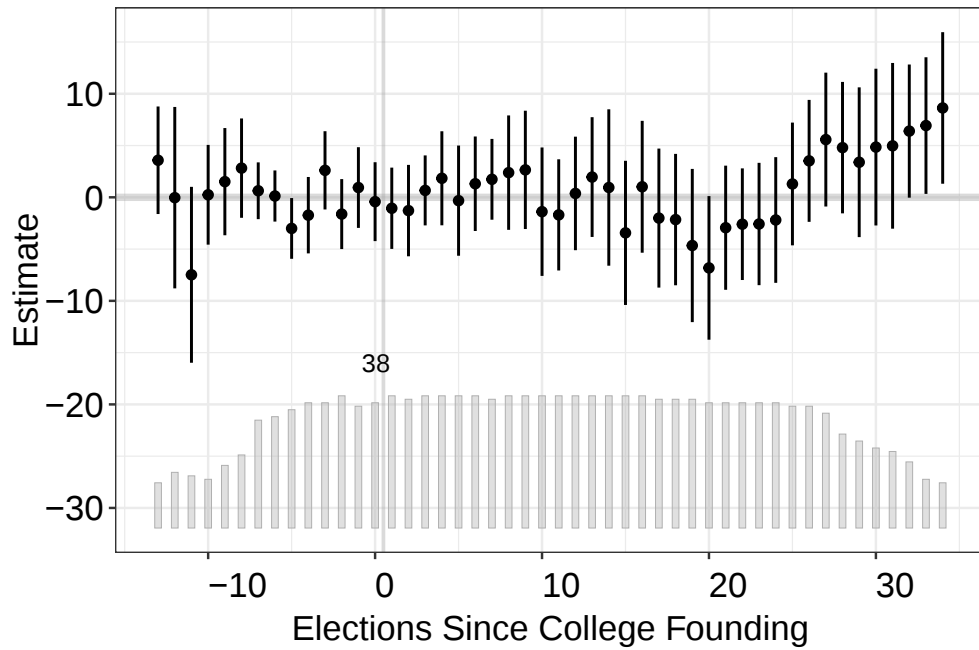
¹Note that since counties are nested within experiments, experiment fixed effects (which were used in our baseline specifications) bring no identifying variation in this specification, and so are not included.

Figure G7: ATT of College on Democratic Vote Share, TWFE Estimator



Notes: Point estimates and 95% confidence intervals derived from two-way fixed effects estimator, with fixed effects for county and year.

Figure G8: ATT of College on Democratic Vote Share, Matrix Completion Estimator



Notes: Point estimates and 95% confidence intervals derived the matrix completion estimator (Athey et al., 2018), accounting for factors at the county and year level.

years) after the establishment of a college. They steadily increase in subsequent election after that point. For reference, 50% of the site selection experiments happened before 1883 and 90% before 1910. This suggests that most of these significant treatment effects are driven by elections after 1980, consistent with the results in the main text.

H Additional Tables and Figures

Table H12: Party ID and Ideology: HTEs by Education

	Democratic ID	Republican ID	Ideology
	(1)	(2)	(3)
Treatment $\times$ Less Than College	0.02 (0.01)	-0.01 (0.01)	-0.11*** (0.02)
Treatment $\times$ College Degree	0.06*** (0.01)	-0.05*** (0.01)	-0.22*** (0.04)
Sample	Non-Students	Non-Students	Non-Students
Individual Controls	✓	✓	✓
Experiment $\times$ College Attainment FEs	✓	✓	✓
Survey Year $\times$ College Attainment FEs	✓	✓	✓
N	57,698	57,698	53,440
N Experiment $\times$ College	126	126	126
N Survey Year $\times$ College	34	34	34
R^2	0.10	0.08	0.10
p -value for H_0 : No Heterogeneity	< 0.01	< 0.01	< 0.01

Notes: This table estimates models that disaggregate differences in partisan identification and ideology by education level. Experiment-by-education and year-by-education fixed effects are included. Lower-order terms for education are subsumed by fixed effects. Standard errors clustered by county. The p -value refers to a Wald test of equality of the two treatment coefficients. Data source: Cooperative Election Survey. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

H.1 Complete Tables for GSS Results

Table H13: Civic Engagement: Member of Club or Organization

	(1)	(2)
Winner	0.160 (0.123)	0.102 (0.062)
High School		0.211** (0.086)
Two-Year College		0.332*** (0.096)
Four-Year College		0.599*** (0.066)
Age 18 to 24		0.182* (0.103)
Age 25 to 34		0.016 (0.111)
Age 35 to 44		0.090 (0.089)
Age 45 to 54		0.115 (0.104)
Age 55 to 64		0.124 (0.112)
Race: Black		-0.056 (0.107)
Race: Other		-0.038 (0.088)
Female		0.050 (0.061)
Constant	0.375*** (0.124)	0.050 (0.132)
Observations	384	384
R-squared	0.093	0.273
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H14: Civic Engagement: Volunteered in Past Year

	(1)	(2)
Winner	0.036 (0.050)	0.021 (0.040)
High School		0.079 (0.059)
Two-Year College		0.153** (0.068)
Four-Year College		0.384*** (0.055)
Age 18 to 24		0.276*** (0.072)
Age 25 to 34		0.116* (0.066)
Age 35 to 44		0.227*** (0.065)
Age 45 to 54		0.147*** (0.051)
Age 55 to 64		0.102 (0.061)
Race: Black		0.023 (0.058)
Race: Other		-0.038 (0.074)
Female		0.130*** (0.040)
Constant	0.375*** (0.077)	-0.008 (0.076)
Observations	943	943
R-squared	0.069	0.184
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H15: Civic Engagement: Interest in Politics (1-5 scale)

	(1)	(2)
Winner	-0.157 (0.140)	-0.035 (0.156)
High School		-0.422** (0.180)
Two-Year College		-0.592*** (0.154)
Four-Year College		-0.774*** (0.200)
Age 18 to 24		1.114*** (0.270)
Age 25 to 34		0.637*** (0.190)
Age 35 to 44		0.599*** (0.181)
Age 45 to 54		0.566** (0.221)
Age 55 to 64		0.320* (0.177)
Race: Black		-0.382*** (0.141)
Race: Other		0.146 (0.182)
Female		0.177 (0.128)
Constant	2.133*** (0.194)	2.412*** (0.253)
Observations	600	600
R-squared	0.124	0.239

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H16: Self-Assessed Civic Knowledge: How Often Read News (1-5 scale)

	(1)	(2)
Winner	0.006 (0.080)	0.067 (0.059)
High School		-0.492*** (0.090)
Two-Year College		-0.643*** (0.096)
Four-Year College		-0.966*** (0.107)
Age 18 to 24		1.129*** (0.126)
Age 25 to 34		1.226*** (0.106)
Age 35 to 44		0.883*** (0.086)
Age 45 to 54		0.623*** (0.099)
Age 55 to 64		0.447*** (0.090)
Race: Black		-0.136** (0.057)
Race: Other		-0.032 (0.091)
Female		0.130** (0.052)
Constant	1.680*** (0.409)	1.495*** (0.315)
Observations	3,172	3,172
R-squared	0.183	0.294

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H17: Self-Assessed Civic Knowledge: How Informed Foreign Policy (1-5 scale)

	(1)	(2)
Winner	-0.464 (0.284)	-0.480 (0.323)
High School		-0.228 (0.435)
Two-Year College		-0.472 (0.429)
Four-Year College		-0.893* (0.470)
Age 18 to 24		0.149 (0.313)
Age 25 to 34		0.259 (0.300)
Age 35 to 44		0.466* (0.225)
Age 45 to 54		0.134 (0.242)
Age 55 to 64		-0.100 (0.201)
Race: Black		-0.056 (0.314)
Race: Other		0.139 (0.306)
Female		0.534*** (0.120)
Constant	3.571 (.)	3.364*** (0.465)
Observations	234	234
R-squared	0.150	0.284
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H18: Self-Assessed Civic Knowledge: How Informed Economic Policy (1-5 scale)

	(1)	(2)
Winner	-0.477** (0.201)	-0.532** (0.247)
High School		-0.240 (0.324)
Two-Year College		-0.468 (0.336)
Four-Year College		-0.725* (0.366)
Age 18 to 24		-0.017 (0.325)
Age 25 to 34		-0.257 (0.252)
Age 35 to 44		0.150 (0.237)
Age 45 to 54		-0.166 (0.187)
Age 55 to 64		-0.081 (0.219)
Race: Black		0.005 (0.286)
Race: Other		-0.153 (0.297)
Female		0.548*** (0.156)
Constant	3.325 (.)	3.390*** (0.279)
Observations	234	234
R-squared	0.129	0.259

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H19: Attitudes Towards Education: Has a Great Deal of Confidence in Education

	(1)	(2)
Winner	0.053** (0.024)	0.053** (0.021)
High School		-0.056** (0.027)
Two-Year College		-0.127*** (0.032)
Four-Year College		-0.090*** (0.030)
Age 18 to 24		0.077* (0.042)
Age 25 to 34		0.028 (0.032)
Age 35 to 44		-0.057 (0.036)
Age 45 to 54		-0.041 (0.028)
Age 55 to 64		-0.034 (0.034)
Race: Black		0.123*** (0.040)
Race: Other		0.107*** (0.026)
Female		0.008 (0.018)
Constant	0.159*** (0.056)	0.183** (0.068)
Observations	3,185	3,185
R-squared	0.043	0.073
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H20: Attitudes Towards Education: Should Spend More on Education

	(1)	(2)
Winner	-0.000 (0.035)	0.015 (0.038)
High School		0.038 (0.059)
Two-Year College		0.059 (0.070)
Four-Year College		-0.035 (0.066)
Age 18 to 24		0.297*** (0.068)
Age 25 to 34		0.218*** (0.066)
Age 35 to 44		0.174** (0.085)
Age 45 to 54		0.133 (0.094)
Age 55 to 64		0.096 (0.089)
Race: Black		0.086 (0.054)
Race: Other		0.066 (0.049)
Female		0.051* (0.028)
Constant	0.732*** (0.075)	0.565*** (0.120)
Observations	602	602
R-squared	0.066	0.130

Survey year fixed effects and college location experiment fixed effects omitted from results table. SE clustered by county.

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H21: Political: Identify as Republican

	(1)	(2)
Winner	-0.013 (0.016)	-0.018 (0.014)
High School		0.114*** (0.019)
Two-Year College		0.151*** (0.021)
Four-Year College		0.145*** (0.022)
Age 18 to 24		-0.120*** (0.026)
Age 25 to 34		-0.086*** (0.027)
Age 35 to 44		-0.044* (0.026)
Age 45 to 54		-0.025 (0.027)
Age 55 to 64		-0.008 (0.027)
Race: Black		-0.285*** (0.021)
Race: Other		-0.122*** (0.029)
Female		-0.013 (0.016)
Constant	0.392*** (0.068)	0.446*** (0.061)
Observations	5,184	5,184
R-squared	0.036	0.105
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H22: Political: Identify as Independent

	(1)	(2)
Winner	-0.051*** (0.018)	-0.044*** (0.016)
High School		-0.093*** (0.026)
Two-Year College		-0.160*** (0.032)
Four-Year College		-0.172*** (0.028)
Age 18 to 24		0.257*** (0.030)
Age 25 to 34		0.185*** (0.023)
Age 35 to 44		0.111*** (0.022)
Age 45 to 54		0.090*** (0.025)
Age 55 to 64		0.068** (0.028)
Race: Black		-0.091*** (0.022)
Race: Other		0.077** (0.029)
Female		-0.029* (0.015)
Constant	0.302*** (0.088)	0.349*** (0.080)
Observations	5,184	5,184
R-squared	0.021	0.069
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H23: Political: Identify as Democrat

	(1)	(2)
Winner	0.053*** (0.015)	0.050*** (0.013)
High School		-0.027 (0.023)
Two-Year College		-0.001 (0.028)
Four-Year College		0.018 (0.023)
Age 18 to 24		-0.144*** (0.028)
Age 25 to 34		-0.108*** (0.026)
Age 35 to 44		-0.072*** (0.022)
Age 45 to 54		-0.067*** (0.019)
Age 55 to 64		-0.066*** (0.022)
Race: Black		0.394*** (0.028)
Race: Other		0.051* (0.030)
Female		0.048*** (0.014)
Constant	0.315*** (0.099)	0.215*** (0.065)
Observations	5,184	5,184
R-squared	0.031	0.110

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H24: Political: Voted in Presidential Election

	(1)	(2)
Winner	0.042 (0.026)	0.013 (0.018)
High School		0.230*** (0.025)
Two-Year College		0.353*** (0.027)
Four-Year College		0.449*** (0.024)
Age 18 to 24		-0.444*** (0.040)
Age 25 to 34		-0.321*** (0.025)
Age 35 to 44		-0.221*** (0.023)
Age 45 to 54		-0.165*** (0.021)
Age 55 to 64		-0.086*** (0.020)
Race: Black		0.059** (0.024)
Race: Other		-0.142*** (0.032)
Female		0.041*** (0.010)
Constant	0.895*** (0.097)	0.782*** (0.068)
Observations	4,800	4,800
R-squared	0.035	0.220

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H25: Political: How Conservative (1-7 scale)

	(1)	(2)
Winner	-0.200*** (0.066)	-0.168** (0.069)
High School		-0.018 (0.064)
Two-Year College		-0.030 (0.069)
Four-Year College		-0.205*** (0.069)
Age 18 to 24		-0.609*** (0.119)
Age 25 to 34		-0.454*** (0.103)
Age 35 to 44		-0.252*** (0.085)
Age 45 to 54		-0.166** (0.062)
Age 55 to 64		-0.144* (0.081)
Race: Black		-0.467*** (0.081)
Race: Other		-0.335*** (0.097)
Female		-0.144*** (0.037)
Constant	4.747*** (0.165)	5.293*** (0.190)
Observations	4,603	4,603
R-squared	0.046	0.081
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H26: Attitudes Towards Science: Thinks Big Bang is True

	(1)	(2)
Winner	-0.010 (0.030)	-0.020 (0.025)
High School		-0.013 (0.055)
Two-Year College		0.077 (0.073)
Four-Year College		0.199** (0.082)
Age 18 to 24		0.028 (0.080)
Age 25 to 34		0.001 (0.051)
Age 35 to 44		0.040 (0.062)
Age 45 to 54		-0.012 (0.061)
Age 55 to 64		-0.067 (0.069)
Race: Black		-0.123 (0.075)
Race: Other		-0.006 (0.062)
Female		-0.188*** (0.028)
Constant	0.554*** (0.088)	0.587*** (0.092)
Observations	926	926
R-squared	0.094	0.173
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H27: Attitudes Towards Science: Believes in Human Evolution

	(1)	(2)
Winner	0.086** (0.041)	0.052 (0.045)
High School		0.022 (0.056)
Two-Year College		0.118* (0.064)
Four-Year College		0.228*** (0.066)
Age 18 to 24		0.208** (0.077)
Age 25 to 34		0.145** (0.056)
Age 35 to 44		0.021 (0.067)
Age 45 to 54		-0.033 (0.064)
Age 55 to 64		-0.013 (0.076)
Race: Black		-0.162** (0.070)
Race: Other		-0.050 (0.066)
Female		-0.154*** (0.034)
Constant	0.352*** (0.065)	0.385*** (0.114)
Observations	925	925
R-squared	0.080	0.173

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H28: Attitudes Towards Science: Science Makes Life Better

	(1)	(2)
Winner	0.036** (0.017)	0.035** (0.017)
High School		0.042 (0.038)
Two-Year College		0.096** (0.040)
Four-Year College		0.102*** (0.034)
Age 18 to 24		-0.028 (0.044)
Age 25 to 34		0.032 (0.033)
Age 35 to 44		-0.001 (0.032)
Age 45 to 54		-0.006 (0.040)
Age 55 to 64		-0.004 (0.029)
Race: Black		-0.043 (0.033)
Race: Other		-0.039 (0.037)
Female		0.023 (0.021)
Constant	0.815*** (0.050)	0.752*** (0.065)
Observations	1,442	1,442
R-squared	0.097	0.117

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H29: Attitudes Towards Science: Science Will Solve Environmental Problems

	(1)	(2)
Winner	-0.063 (0.062)	-0.013 (0.072)
High School		-0.006 (0.076)
Two-Year College		0.030 (0.085)
Four-Year College		-0.163* (0.094)
Age 18 to 24		-0.068 (0.099)
Age 25 to 34		-0.138* (0.069)
Age 35 to 44		-0.149** (0.055)
Age 45 to 54		-0.175** (0.071)
Age 55 to 64		-0.067 (0.079)
Race: Black		0.058 (0.067)
Race: Other		0.152 (0.124)
Female		-0.075 (0.047)
Constant	0.219** (0.086)	0.411*** (0.109)
Observations	581	581
R-squared	0.087	0.139
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H30: Attitudes Towards Science: Science Gives Opportunities

	(1)	(2)
Winner	0.002 (0.028)	-0.003 (0.027)
High School		0.058* (0.030)
Two-Year College		0.057** (0.025)
Four-Year College		0.084*** (0.027)
Age 18 to 24		-0.057 (0.042)
Age 25 to 34		0.009 (0.031)
Age 35 to 44		-0.019 (0.030)
Age 45 to 54		-0.016 (0.030)
Age 55 to 64		0.016 (0.022)
Race: Black		0.006 (0.027)
Race: Other		0.004 (0.032)
Female		0.049*** (0.017)
Constant	0.985*** (0.038)	0.905*** (0.052)
Observations	1,210	1,210
R-squared	0.036	0.059

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H31: Attitudes Towards Science: Science Makes Life Change Too Fast

	(1)	(2)
Winner	0.049 (0.037)	0.065 (0.039)
High School		-0.134** (0.054)
Two-Year College		-0.213*** (0.071)
Four-Year College		-0.319*** (0.060)
Age 18 to 24		-0.120 (0.094)
Age 25 to 34		-0.098* (0.054)
Age 35 to 44		-0.085** (0.042)
Age 45 to 54		-0.073 (0.052)
Age 55 to 64		-0.093** (0.042)
Race: Black		0.077** (0.038)
Race: Other		0.232*** (0.038)
Female		0.049** (0.024)
Constant	0.278*** (0.087)	0.526*** (0.087)
Observations	1,197	1,197
R-squared	0.089	0.163

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H32: Attitudes Towards Science: We Trust Science Too Much

	(1)	(2)
Winner	0.057 (0.051)	0.086** (0.041)
High School		0.075 (0.066)
Two-Year College		0.060 (0.088)
Four-Year College		-0.014 (0.073)
Age 18 to 24		-0.275** (0.120)
Age 25 to 34		-0.213*** (0.065)
Age 35 to 44		-0.052 (0.104)
Age 45 to 54		-0.042 (0.074)
Age 55 to 64		-0.085 (0.077)
Race: Black		0.031 (0.099)
Race: Other		0.015 (0.094)
Female		0.129** (0.051)
Constant	0.592*** (0.179)	0.553*** (0.150)
Observations	526	526
R-squared	0.090	0.145

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H33: Attitudes Towards Science: Need to Spend More on Scientific Research

	(1)	(2)
Winner	0.000 (0.019)	0.000 (0.019)
High School		-0.050 (0.034)
Two-Year College		0.007 (0.042)
Four-Year College		0.059* (0.032)
Age 18 to 24		0.029 (0.038)
Age 25 to 34		-0.024 (0.043)
Age 35 to 44		0.025 (0.044)
Age 45 to 54		-0.015 (0.041)
Age 55 to 64		0.031 (0.035)
Race: Black		0.004 (0.030)
Race: Other		-0.055 (0.041)
Female		-0.071*** (0.025)
Constant	0.402*** (0.053)	0.432*** (0.059)
Observations	2,562	2,562
R-squared	0.029	0.045
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H34: Attitudes Towards Science: Very Interested in Technologies

	(1)	(2)
Winner	-0.028 (0.024)	-0.022 (0.026)
High School		0.026 (0.077)
Two-Year College		0.225** (0.089)
Four-Year College		0.151* (0.086)
Age 18 to 24		0.064 (0.099)
Age 25 to 34		0.036 (0.080)
Age 35 to 44		-0.045 (0.068)
Age 45 to 54		-0.056 (0.074)
Age 55 to 64		0.070 (0.065)
Race: Black		0.074* (0.044)
Race: Other		-0.102* (0.053)
Female		-0.126*** (0.039)
Constant	0.528*** (0.065)	0.419*** (0.136)
Observations	974	974
R-squared	0.031	0.090
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H35: Views on Social Policy: Government Should Reduce Income Disparities

	(1)	(2)
Winner	0.092** (0.043)	0.091* (0.049)
High School		-0.164*** (0.057)
Two-Year College		-0.239*** (0.085)
Four-Year College		-0.233*** (0.080)
Age 18 to 24		0.131* (0.073)
Age 25 to 34		0.130* (0.069)
Age 35 to 44		-0.004 (0.064)
Age 45 to 54		-0.029 (0.078)
Age 55 to 64		0.044 (0.076)
Race: Black		0.203*** (0.050)
Race: Other		0.123 (0.075)
Female		0.060 (0.036)
Constant	0.330*** (0.075)	0.445*** (0.101)
Observations	770	770
R-squared	0.080	0.151

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H36: Views on Social Policy: Government Should Help the Poor

	(1)	(2)
Winner	0.050*	0.058**
	(0.025)	(0.024)
High School		-0.105***
		(0.023)
Two-Year College		-0.153***
		(0.029)
Four-Year College		-0.170***
		(0.023)
Age 18 to 24		0.093**
		(0.039)
Age 25 to 34		0.122***
		(0.035)
Age 35 to 44		0.065*
		(0.035)
Age 45 to 54		0.058*
		(0.029)
Age 55 to 64		0.091**
		(0.043)
Race: Black		0.203***
		(0.027)
Race: Other		0.115***
		(0.041)
Female		0.095***
		(0.015)
Constant	0.667***	0.576***
	(0.070)	(0.068)
Observations	2,953	2,953
R-squared	0.032	0.086

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H37: Views on Social Policy: Government Should Do More

	(1)	(2)
Winner	0.056** (0.024)	0.061** (0.024)
High School		-0.095*** (0.030)
Two-Year College		-0.160*** (0.035)
Four-Year College		-0.123*** (0.029)
Age 18 to 24		0.062 (0.046)
Age 25 to 34		0.094*** (0.034)
Age 35 to 44		0.098*** (0.031)
Age 45 to 54		0.044 (0.037)
Age 55 to 64		0.013 (0.028)
Race: Black		0.109*** (0.037)
Race: Other		0.103* (0.061)
Female		0.029 (0.018)
Constant	0.202*** (0.064)	0.187*** (0.057)
Observations	2,898	2,898
R-squared	0.050	0.079

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H38: Views on Social Policy: Government Should Pay for Medical Care

	(1)	(2)
Winner	0.049*** (0.010)	0.054*** (0.010)
High School		-0.053** (0.021)
Two-Year College		-0.099*** (0.028)
Four-Year College		-0.099*** (0.025)
Age 18 to 24		0.099*** (0.030)
Age 25 to 34		0.095*** (0.023)
Age 35 to 44		0.073** (0.028)
Age 45 to 54		0.005 (0.031)
Age 55 to 64		0.074*** (0.027)
Race: Black		0.135*** (0.016)
Race: Other		0.046** (0.022)
Female		0.066*** (0.016)
Constant	0.795*** (0.038)	0.705*** (0.036)
Observations	2,957	2,957
R-squared	0.036	0.074

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H39: Views on Social Policy: Government Should Aid Blacks

	(1)	(2)
Winner	0.102*** (0.021)	0.103*** (0.019)
High School		-0.054* (0.032)
Two-Year College		-0.013 (0.038)
Four-Year College		0.020 (0.035)
Age 18 to 24		0.102*** (0.029)
Age 25 to 34		0.008 (0.020)
Age 35 to 44		0.040* (0.023)
Age 45 to 54		0.051* (0.030)
Age 55 to 64		0.023 (0.025)
Race: Black		0.257*** (0.028)
Race: Other		0.081 (0.050)
Female		0.002 (0.017)
Constant	0.082 (0.071)	-0.024 (0.049)
Observations	2,909	2,909
R-squared	0.057	0.108

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H40: Social Trust and Engagement: Generally Speaking, Most People Can Be Trusted

	(1)	(2)
Winner	0.085*** (0.024)	0.058** (0.023)
High School		0.100*** (0.020)
Two-Year College		0.221*** (0.029)
Four-Year College		0.371*** (0.024)
Age 18 to 24		-0.152*** (0.038)
Age 25 to 34		-0.172*** (0.034)
Age 35 to 44		-0.105*** (0.030)
Age 45 to 54		-0.024 (0.028)
Age 55 to 64		0.017 (0.042)
Race: Black		-0.206*** (0.022)
Race: Other		-0.184*** (0.034)
Female		-0.043** (0.019)
Constant	0.264** (0.107)	0.284*** (0.091)
Observations	2,986	2,986
R-squared	0.050	0.183

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H41: Social Trust and Engagement: People Try to be Fair

	(1)	(2)
Winner	0.064** (0.026)	0.037 (0.023)
High School		0.130*** (0.029)
Two-Year College		0.198*** (0.032)
Four-Year College		0.326*** (0.027)
Age 18 to 24		-0.232*** (0.042)
Age 25 to 34		-0.223*** (0.033)
Age 35 to 44		-0.111*** (0.037)
Age 45 to 54		-0.106*** (0.032)
Age 55 to 64		-0.022 (0.035)
Race: Black		-0.118*** (0.036)
Race: Other		-0.033 (0.035)
Female		0.009 (0.024)
Constant	0.415*** (0.068)	0.419*** (0.081)
Observations	2,759	2,759
R-squared	0.029	0.115
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H42: Social Trust and Engagement: Most of the Time People Try to be Helpful

	(1)	(2)
Winner	0.112*** (0.029)	0.091*** (0.025)
High School		0.090*** (0.025)
Two-Year College		0.172*** (0.030)
Four-Year College		0.237*** (0.035)
Age 18 to 24		-0.230*** (0.036)
Age 25 to 34		-0.203*** (0.034)
Age 35 to 44		-0.178*** (0.034)
Age 45 to 54		-0.143*** (0.034)
Age 55 to 64		-0.069* (0.036)
Race: Black		-0.046 (0.041)
Race: Other		-0.023 (0.035)
Female		0.065** (0.028)
Constant	0.462*** (0.082)	0.463*** (0.076)
Observations	2,747	2,747
R-squared	0.030	0.084

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H43: Social Trust and Engagement: How Often Spend Social Evening with Neighbor

	(1)	(2)
Winner	-0.024 (0.146)	-0.004 (0.149)
High School		0.096 (0.156)
Two-Year College		0.024 (0.168)
Four-Year College		-0.202 (0.144)
Age 18 to 24		-0.766*** (0.195)
Age 25 to 34		-0.193 (0.163)
Age 35 to 44		-0.012 (0.172)
Age 45 to 54		0.086 (0.167)
Age 55 to 64		0.121 (0.203)
Race: Black		0.132 (0.125)
Race: Other		0.010 (0.156)
Female		0.191** (0.079)
Constant	4.300*** (0.545)	4.317*** (0.549)
Observations	3,068	3,068
R-squared	0.029	0.052
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H44: Social Trust and Engagement: How Often Spend Social Evening with Friends Outside Neighborhood

	(1)	(2)
Winner	-0.101 (0.069)	-0.045 (0.059)
High School		-0.314*** (0.113)
Two-Year College		-0.488*** (0.107)
Four-Year College		-0.624*** (0.097)
Age 18 to 24		-1.593*** (0.103)
Age 25 to 34		-0.870*** (0.092)
Age 35 to 44		-0.473*** (0.082)
Age 45 to 54		-0.349*** (0.119)
Age 55 to 64		-0.221** (0.108)
Race: Black		-0.110 (0.085)
Race: Other		0.073 (0.132)
Female		0.091 (0.064)
Constant	3.506*** (0.275)	4.474*** (0.208)
Observations	3,069	3,069
R-squared	0.027	0.131

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H45: Social Trust and Engagement: Number of Close Friends

	(1)	(2)
Winner	-0.980*** (0.228)	-0.832** (0.375)
High School		0.133 (0.417)
Two-Year College		0.559 (0.384)
Four-Year College		0.673** (0.321)
Age 18 to 24		0.654 (0.436)
Age 25 to 34		0.344 (0.420)
Age 35 to 44		0.160 (0.491)
Age 45 to 54		0.085 (0.447)
Age 55 to 64		0.812 (0.637)
Race: Black		-0.370 (0.283)
Race: Other		-0.764*** (0.253)
Female		0.608** (0.245)
Constant	2.172 (.)	1.347*** (0.474)
Observations	208	208
R-squared	0.151	0.247
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H46: Social Trust and Engagement: Need to Worry about Others

	(1)	(2)
Winner	0.016 (0.048)	-0.005 (0.049)
High School		0.019 (0.051)
Two-Year College		0.144** (0.063)
Four-Year College		0.168*** (0.061)
Age 18 to 24		0.020 (0.086)
Age 25 to 34		-0.013 (0.069)
Age 35 to 44		0.134** (0.055)
Age 45 to 54		0.092 (0.073)
Age 55 to 64		0.135* (0.078)
Race: Black		-0.024 (0.077)
Race: Other		0.125 (0.109)
Female		0.114** (0.049)
Constant	0.546*** (0.072)	0.374*** (0.110)
Observations	735	735
R-squared	0.055	0.106
*p<0.05; **p<0.01; ***p<0.001		

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H47: Social Trust and Engagement: Assisting People is Important

	(1)	(2)
Winner	0.030 (0.028)	0.024 (0.028)
High School		-0.016 (0.053)
Two-Year College		-0.061 (0.048)
Four-Year College		-0.005 (0.067)
Age 18 to 24		0.130* (0.068)
Age 25 to 34		0.120** (0.052)
Age 35 to 44		0.192*** (0.064)
Age 45 to 54		0.107 (0.067)
Age 55 to 64		0.068 (0.076)
Race: Black		0.029 (0.045)
Race: Other		0.072 (0.081)
Female		0.105*** (0.031)
Constant	0.618*** (0.060)	0.445*** (0.110)
Observations	737	737
R-squared	0.061	0.099

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H48: Social Trust and Engagement: During Past 12 Months, Carried Stranger’s Belongings, Groceries, Suitcase, or Shopping Bag

	(1)	(2)
Winner	-0.072 (0.062)	-0.051 (0.060)
High School		0.039 (0.059)
Two-Year College		0.201*** (0.071)
Four-Year College		0.108 (0.072)
Age 18 to 24		0.104 (0.068)
Age 25 to 34		0.143** (0.055)
Age 35 to 44		0.199** (0.077)
Age 45 to 54		0.150** (0.065)
Age 55 to 64		0.165** (0.075)
Race: Black		0.082* (0.042)
Race: Other		-0.150* (0.082)
Female		-0.044 (0.050)
Constant	0.448*** (0.098)	0.244** (0.117)
Observations	735	735
R-squared	0.066	0.114

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.

Table H49: Social Trust and Engagement: During Past 12 Months, Looked after Person's Plant, Pet, or Mail While They Were Away

	(1)	(2)
Winner	0.020 (0.061)	0.001 (0.056)
High School		0.129** (0.060)
Two-Year College		0.261*** (0.067)
Four-Year College		0.173*** (0.059)
Age 18 to 24		-0.006 (0.081)
Age 25 to 34		0.091 (0.071)
Age 35 to 44		0.045 (0.061)
Age 45 to 54		0.149* (0.076)
Age 55 to 64		0.001 (0.092)
Race: Black		-0.284*** (0.066)
Race: Other		-0.058 (0.058)
Female		0.108** (0.048)
Constant	0.521*** (0.110)	0.417*** (0.138)
Observations	738	738
R-squared	0.068	0.152

*p<0.05; **p<0.01; ***p<0.001

Notes: Survey year fixed effects and college location experiment fixed effects omitted from results table. Standard errors clustered by county.