The Battle of Ideas: The Threats of Donations Reliance in the U.S. Higher Education System

Diego Escobar Salce *

November 2021

Abstract

Higher education institutions in the United States receive a sizeable and growing share of their resources from philanthropic contributions. The proportion of research funding provided by donations reaches up to 30 percent of funding at elite institutions, a large share of which comes from a few concentrated donors, usually through private foundations. Recent research indicates that private foundations deploy funding strategically to influence policy decisions, evidencing a mechanism through which contributors can influence universities' policies. This analysis assesses contributors' political drive in funding deployment by exploiting transaction-level data from over 75,000 private foundations from 2000 to 2018 totaling almost $100 billion, and data on individuals' political campaign contributions. The estimations indicate that increasing contributor-university ideological differences by one percent reduces donations between 1.1 and 1.5 percent, even after accounting for foundations' preferences for other attributes. The salience of political ideology is more substantial among wealthier contributors, donors supporting research and elite institutions, and donors deploying restricted-use funds. The effect is less prominent for donors supporting public schools and scholarships. Given the estimated ideological preferences of contributors, estimations show that universities face incentives to tilt towards more extreme views to accommodate donors' political preferences and increase donations. These incentives are consistent with the polarization observed in the higher education system in recent decades.

*University of Chicago Harris School of Public Policy

1 Introduction

In the last couple of decades, universities have substantially increased their financial reliance on charitable contributions, partially due to the decrease in other funding sources. According to Giving USA, total donations to education went from $40.1 billion in 2000 to $58.9 billion in 2017 dollars, a 47 percent increase. When combined with endowment income, Murray (2013) indicates that research funding from philanthropy adds up to $7 billion a year, and donations provide almost 30 percent of the annual research funds in leading universities. In contrast, alternative funding sources such as industry contributions account for less than 6 percent of universities' research funding. While the higher education system greatly benefits from the additional resources these donations bring, they may threaten the system's independence.

Along with other research groups and think tanks, universities are providers of non-partisan technical expertise. In contrast with these other institutions, universities are expected to offer a more neutral input into the lawmaking process. However, they are susceptible to external influences, just as any other institution relying on outside funding. In this paper, I measure the political leaning of boards of private foundations and faculty of higher education institutions in the US by linking them to their donations to political campaigns. Moreover, I estimate the donations' sensitivity to ideological differences between donors and universities. Finally, the estimated donations' elasticity is used to inform a model to simulate the incentives faced by universities to shift their political leaning given the donors in their states.

In the spirit of special interest politics, as in Gene M. Grossman and Helpman (1996), donors may be considered to have preferences over the activities of the universities and contribute to them with a *support* motive and an *influence* motive. Donations made with a supportive motive seek to support academic activities and research in donors' interest areas. In contrast, donations made with an influence motive directly seek to affect the universities' policies. While the latter type of motive is potentially riskier, it is also more easily monitored.

Notwithstanding this distinction, if donors offer contingent contributions, both motives will confront the universities with a fundamental trade-off. If universities can increase their resources

by shifting their political ideology, then, on the margin, they face an incentive to tilt their political leaning towards those of their financial supporters. For example, Bertrand, Bombardini, Fisman, Hackinen, et al. (2018) analyze donations by charitable arms of large corporations and find evidence that non-profits are more likely to support policies upheld by contributing firms after they receive donations. This evidence suggests that non-profits are influenceable by the donors who support them, either consciously or otherwise. Universities face similar threats to their independence through their funding reliance, although this has been scarcely explored in the literature.

While it is unlikely that funders can affect the opinions of academics within a higher education institution, there are several ways in which funding could influence academics' overall ideology. A conservative (liberal) donor with an influence motive could attempt to shift the political leaning of an institution to the right (left) by getting involved in the decision-making process inside the universities or offering funding contingent on the institutions performing certain activities. In principle, most universities have internal rules to avoid this, although breaching cases have occurred. On the other hand, funders can influence a universities' overall ideology simply by funding departments, research centers, or academics within the university that are more aligned with their preferred views. If several donors contribute similarly, or if a limited amount of concentrated donors control a large share of resources, this mechanism can potentially shift universities' political leaning.

Similarly, researchers are also susceptible to become captured by the interests of those they depend on for resources, data access, or even career and consulting perspectives (Zingales (2014)). This dependence is akin to what economists refer to as regulatory capture, where regulators cater to the interest of those they regulate. Moreover, the threat expands when a significant proportion of funding comes from a small concentrated pool of large donors. As Zingales puts it, "until we admit that we can be captured by vested interests as much as regulators, the risk of capture cannot be addressed. For this reason, the most important remedy is to start talking about this problem."

Private foundations are charitable tax-exempt non-profit organizations that generally get their

resources from a single donor or family[1], unlike public charities that are funded by the general public. The creation and functioning of private foundations have associated costs such as required minimum expenditures and special tax filing requirements. In return, they grant their contributors a large degree of control over the funds' use and timing. Moreover, they grant a tax subsidy by allowing the deduction of charitable contributions from income taxes.

Responses to the Voluntary Support of Education Survey conducted by CASE suggest that US colleges and universities raised $49.6 billion during the 2019 academic year. Private foundations accounted for 34.3 percent of such donations, surpassing alumni support as the primary source since 2007. In comparison, federal funding to higher education was $74.8 billion in 2017, while state funding reached $87.1 billion. Overall, donations represent around 10 percent of the total funding of universities each year, with high disparities across universities. Additionally, the discretionary nature of donations leverages their influence on universities decisions. However, researchers have neglected the study of private foundations compared to other philanthropic institutions such as corporate foundations, despite the comparatively larger amounts involved. In 2017, donations by private foundations totaled $66.9 billion according to the Foundation Center, more than three times larger than donations by corporations that were $20.77 billion the same year.

The mechanisms through which private foundations' resources can shape social policy direction have been scrutinized in the literature. Despite this, most education-related research has focused on the impacts on K-12 education. Usually, studies have relied on the donations of a small subset of foundations (e.g., Reckhow (2012) and references therein). Reckhow (2012) and Shanks (2018) indicate that foundations involved in education are increasingly adopting more strategic and selective approaches to grantmaking, concentrating on fewer school districts and more willingly engaging in politics. The present study contributes by expanding the scope of the analysis to higher education. Given the role of higher education institutions' research on the pol-

[1] An increasingly common exception to this are donor-advised funds, to which donors can contribute through a centrally managed private foundation. This legal arrangement aids donors in avoiding the high maintenance costs of private foundations and permits bypassing the annual minimum expenditure requirement of 5 percent of its investment market value. However, the donors retain control over the use of the resources, and the variations arise mainly to circumvent tax obligations.

icy discussion, influencing universities and colleges would allow contributors to influence in the "battle of ideas." In addition to this, this study dramatically expands the sample's representativity compared with previous analyses focused on higher education by exploiting transaction-level data from over 87,000 foundations spanning over 18 years.

This study also contributes by estimating the political positions of faculty, which has long been debated in the literature, and private foundations, for which there is minimal evidence in the literature. First, the faculty's ideology is measured by linking the reported employers of contributors to political campaigns using Bonica (2014) data from 2000 to 2018. Next, the political preferences of private foundations are inferred from each foundation's board members' contributions to political campaigns. Finally, the names of recipient institutions are matched to their official or alias names using fuzzy-matching methods. This procedure identifies 800 thousand transactions from 20,368 foundations as directed to higher education institutions. The matched donations total $ 95 billion in 2014 inflation-adjusted dollars.

The evidence indicates that supporters contribute significantly more to those who share their political views. Estimations show that faculty and donors' ideological positions are strongly correlated: shifting faculty ideology by one standard deviation is associated with a change in contributors' ideology between 10.3 and 14.2 percent of a standard deviation, even after accounting for fixed state and time differences and several universities' features. The association between universities and donors' political ideologies is significantly stronger for universities that receive a larger proportion of their funds from private foundations and where faculty has less diverse views. Public schools, on the contrary, present a more negligible donor-university views correlation. These patterns are consistent with wealthier donors operating more strategically, possibly acknowledging their higher capacity to influence their grantees. The relationship between donors and recipients ideology is also stronger among top-ranked colleges and universities, which are more politically influential and more relevant to policy and regulatory decisions.

When individuals decide to donate to universities, they certainly weigh many factors in their decision. In particular, even donors contributing with an *influence* motive are likely to seek various objectives relevant to them, many of which are unaligned with political ideology. Unfor-

tunately, the idiosyncratic nature of these objectives makes them hard to track since each donor's postures on a given topic are not observable to the researcher. Consequently, they do not allow for a joint assessment to compare donors. Instead, this study focuses on universities and donors' political leaning due to its inherent importance and higher transparency.

The analysis exploits transaction-level data of donations made by private foundations to estimate the sensitivity of donations to ideological differences between universities and private foundations, defined as the absolute value of their political contribution scores. The results indicate that increasing ideological distance by one percent statistically significantly decreases a donor's contribution to a university between 1.1 and 1.5 percent. The estimation relies on comparing donations made in a given year against alternative universities in the same state. The analysis also includes university-time fixed effects capture university actions that affect all donors independently of their political views on any given year. The negative impact of ideological distance on donations holds when measuring university views based on their faculty or their chair offices and when using amounts or binary donation decisions.

The preference for like-minded colleges is also stronger among donors who contribute a larger share of their funds to research and universities' current operations. However, evidence of whether this exclusively occurs in policy-relevant areas is inconclusive. This is partly due to the difficulty of classifying policy-relevant topics from the scarce available information about grants' purposes. This evidence also suggests that requesting more detailed information about the activities funded by each grant and requesting donations to be made to broadly defined areas (i.e., taking discretionary power away from donors) would diminish this channel's threat. Universities that reported receiving a larger proportion of their donations from foundations as *restricted* for a specific goal received funding from donors that weighted university preferences more heavily.

While the preceding analysis focuses on the donations on individual universities, the aggregate effects will arguably depend on the patterns that donations take into practice. For example, it is possible for the incentives generated by donations to a given higher education institution to offset each other if they rely on both conservative and liberal donors. On the contrary, if con-

servative and liberal donors specialize in donating to different institutions, it incentivizes these organizations to adopt more extreme postures to increase their contributions. It is unlikely that any given political ideology will produce enough incentives to shift the universities' postures on a system with highly atomized donors, as used to occur with alumni donations. In practice, however, most private foundations are funded by highly wealthy donors whose views are unaligned with those of the general public. In addition, the estimated ideology-contribution elasticity suggests that a large proportion of universities have incentives to adopt more extreme views, following those of their already polarized supporters.

Moreover, this goes against regulatory aims to impede tax subsidization of political voice for specific groups. While the present study focuses on universities given data availability and their strong influence in higher education, this also sheds light on interest groups' behavior and other non-profits and foundations that seek out funding from donors.

The rest of the paper is organized as follows: Section 2 reviews relevant literature about regulatory special interest and political leaning of higher education institutions. Section 3 introduces the different data sources used in the paper, and Section 4 explains the empirical approach. Section 5 presents the results, separated into analyzing donor preferences, an inspection of grants' purposes, and foundations' characteristics. Section 6 concludes.

2 Literature Review

Philanthropy has long been a significant source of resources for the US higher education system. Besides supporting research, they have bolstered the system by contributing to students' financial aid and other resources necessary to universities' operations. Foundations have thus considerably sustained the development of the higher education system in the United States. Despite this, the consequences, motivations, and potential to interfere with the higher education system are not politically neutral.

In the publicly notorious cases analyzed by Skocpol and Hertel-Fernandez (2016) and J. Mayer (2017), such as the Ollin Foundation in the 1980s, Charles G. Koch Foundation more recently,

these private foundations openly embraced their goal to spread free-market values in elite universities. Mainly due to the magnitude of the amounts and number of institutions involved, different authors have analyzed these cases, such as Skocpol and Hertel-Fernandez (2016) and J. Mayer (2017), and they have also received media attention. For example, Skocpol and Hertel-Fernandez (2016) analyze the Charles G. Koch Foundation and report that it has persistently supported think tanks and programs across the country adhering to libertarian ideals. Additionally, this private foundation supports college and university-based scholars and programs that promote free-market ideas and policies. The case of the Koch brothers is an exception to the norm, in the sense that no other private foundation has (openly) embarked on such large-scale politically driven operations in the higher education sector. However, to my knowledge, no comparable study using comprehensive data on private foundations supporting higher education has been conducted to assess the extent to which these practices are widespread among these organizations.

On a smaller scale, Reckhow and Snyder (2014) analyze giving patterns for the 15 largest K-12 grantmakers. Their evidence supports the idea that foundations increasingly fund organizations that operate as "jurisdictional challengers," that is, organizations that compete with traditional public sector institutions, such as charter schools. As they point out, recent research shows that foundations are increasing their efforts to influence the political processes and policymaking in other areas than higher education. In particular, one of the methods through which these organizations can operate is by supporting the production of evidence favorable to their views. For example, Brulle (2014) show that conservative foundations have funded most philanthropic support for climate change counter-movement.

This mechanism could potentially also open a door for other interactions. Universities play the role of experts in several topics where their research is a major input. However, institutions may be incentivized to present information influenced by their self-interest, as pointed out in the special interest literature (Gene M Grossman and Helpman (2001)). Just like any other organization, higher education institutions must compete intensely for funding opportunities. If universities can increase their funding resources by moving their political ideology, then, on the

margin, they face an incentive to tilt their political leaning to partially accommodate that of their donors.

A considerable strand of literature has studied the effects of campaign finance and lobbying in politics. Some studies have found relatively minor amounts of money compared to the supposedly large return measured for these channels (Ansolabehere, De Figueiredo, and Snyder Jr (2003); Fowler, Garro, and Spenkuch (2020)). However, donors also contribute to obtaining indirect access to politicians and policy discussions that they want to affect (Fouirnaies and Hall (2018)). Evidence also suggests that preferred lobbying mechanisms are dependent on the context (e.g., Bombardini and Trebbi (2012)). This evidences that individuals or corporations aiming to influence political outcomes in their favor may thus do it in less obvious ways, where there is less public monitoring than direct political contributions. In this fashion, contributions to institutions supporting determined ideas can present a more stable and less issue-dependent form of influence in public opinion, as occurs with think tanks and universities.

As argued by Bertrand, Bombardini, Fisman, and Trebbi (2018), charitable giving by large donors can be used through foundations by wealthy donors as a tax-exempt and hard-to-trace form of influence. Unlike lobbying or campaign contributions, this form of influence can be deducted from taxes. [2] List (2011) even cites evidence suggesting that, on the margin, tax-payers are paying $1 through tax deductions for each $1 contributed to philanthropy. Nevertheless, he argues that in practice, donations are not likely to be offset on a one-by-one basis, based on findings from several authors. Despite this, he argues that the amount subsidized is still higher than that implied directly by the rate at which donations can be deducted for tax purposes.

Higher education politics has long been a highly debated topic, given its critical role in research and the emergence of new ideas, forming new professionals, and possibly shaping students' political ideas in the process. The literature has mostly agreed that professors are more liberal than the general population. Moreover, their views vary across fields, states, and researcher ages. N. Gross and Simmons (2007), and N. Gross and Fosse (2012) find evidence consistent with this. Moreover, they show that there are as many professors who hold moderate views as there

[2] Private foundations are allowed to participate in lobbying but are required to identify such transactions and pay a 20 percent fee over such expenditures.

are with more liberal positions, stressing the importance of distinctions that go beyond party affiliation to measure political leaning.

The relatively low diversity in academia has also attracted extensive attention, often by conservative critics accusing bias against conservative academics or students' political indoctrination (Mariani and Hewitt (2008)). According to a survey of US adults conducted in 2018 by Pew Research Center, 79 percent of Republicans and 17 percent of Democrats who had a negative view on higher education responded that professors bring their political and social views into the classroom. Regardless of whether the evidence supports this, the mere existence of a large share of the population holding this view places incentives for politicized private foundations to deliberately attempt to influence higher education political views. Moreover, universities produce a large proportion of the research on several topics. As such, impartiality and reputation represent crucial assets for these institutions. Consequently, the potential to influence universities' research threatens one of the higher education system's primary roles.

Numerous authors have corroborated the influence of researcher ideology in academic writing. Nonetheless, this is not surprising nor indicative of scientific misconduct (see Redding (2013)). In economics, Jelveh, Kogut, and Naidu (2014) show that empirical results in a set of policy-relevant parameters correlate with authors' estimated political ideology based on their campaign contributions. Chilton and Posner (2016) find similar results in academic writing by law professors at elite US schools. Rathbun (2012) shows an association between adopting different paradigms in political science and authors' ideological views. Statistically significant relationships between ideology measured by survey responses and certain economic parameters have also been reported by Carrick-Hagenbarth and Epstein (2012), T. Mayer (2001), and Caplan (2002).

Gordon and Dahl (2013) show that the opinions of economists from top economics departments on current economic affairs differed on their answers and their degree of reported confidence depending on their political views. Moreover, they find that disagreements are larger on topics where academic literature in the topic is small, for which the reported confidence is also smaller. They interpret this as differing priors remaining more determinant in such cases, where

less evidence is available. Nonetheless, academic research usually focuses on topics where more limited evidence is available, strengthening the importance of researchers' beliefs and political ideology. One skeptical argument about the capability to affect research outcomes refers to the peer revision implemented in academic research. Nevertheless, this does not limit the capability of researchers' biases to permeate research, as reflected by studies that document such correlation even among published articles.

Another branch of the literature has focused on the effects of faculty's political ideology on students and their formation. However, the results are more nuanced than those measuring the impacts on research. As argued by Campbell and Horowitz (2016), colleges can influence students' sociopolitical attitudes in several ways, such as learning about other cultures and worldviews, interacting with peers, among others. Although college graduates are generally more liberal than the average population, the discussion has concentrated on whether this effect is causal or provoked by confounding factors such as family background. Kam and Palmer (2008) argue that are individual characteristics that induce students to pursue a college degree are also more likely to induce specific political postures, such as family background. Conversely, A. K. Mayer (2011) find evidence consistent with educational attainment increasing political participation.

Fields outside social sciences are usually considered less subject to political biases since their study topics are often unrelated to political issues. There are numerous exceptions to such rules, however. For example, computer scientists' research can be an input to online businesses or social media regulations, and research by academics in medical departments is related to public health policies. The high expenditures on lobbying in areas connected to these departments also corroborate this intuition. Perhaps more telling, even areas related to natural sciences like medicine are subject to conflicts of interest through their financial connections. Meta-analysis by Bekelman, Li, and C. P. Gross (2003), Barnes (1998), and Lexchin et al. (2003) find statistically significant association between industry sponsorship and pro-industry conclusions. Lexchin et al. (2003) also reports that industry funding did not appear to be correlated with quality, although it reduced publication probability.

Philanthropic donations have historically played an essential role in the US higher education

system, especially in comparison with other countries. Despite this, it would be misleading to assume that funding from large donors such as private foundations that dominate nowadays is equivalent to funding from non-partisan organizations, federal and local sources, or the general public. Besides possibly generating a governance breach, the high reliance on charitable donations arguably implies a different level of stability than, for instance, government funds. Projects selection by universities is also not neutral to their funding sources. For example, private and public funding lead universities to produce different research types (e.g., Murray (2013)). Furthermore, the effects of different funding types amplify if universities endogenously adjust their efforts related to alternative fundraising activities. Crowding-out induced by capacity constraints could occur as in Andreoni and Payne (2003), or due to donations' highly cyclical behavior (see VSE Survey Results (2018)).

Bekkers and Wiepking (2011) conduct an extensive literature review on the motivations for giving of individuals and classifies them in the following categories: awareness of need; solicitation; costs and benefits; altruism; reputation; psychological benefits; values; efficacy. These categories arguably fit in the broader category of *support* motives. Since individual donors are commonly atomized, their potential to act with an *influence* motive is limited. This is not the case with larger private foundations, whose sheer size enables them to seek further-reaching objectives.

The susceptibility generated by resources constraints is particularly worrisome if those who contribute are unrepresentative of the population as a whole, as happens with campaign contributions (e.g., Bonica and Rosenthal (2018)). Thanks to their higher available income, wealthy donors contribute a larger proportion of their income. Moreover, since tax subsidies are more generous for individuals with higher income due to increasing tax brackets, these individuals donate a proportionally larger amount.

3 Data

3.1 Private Foundations

Private Foundations, formally defined as 501(c)(3), are tax-exempt non-profit organizations. They are essentially considered charitable organizations, so they are requested to operate for beneficial purposes to the public interest. Unlike public charities, such as the Red Cross and Feeding America, private foundations' funding comes typically from a single source, usually an individual, family, or company. Trustees or directors appointed by the donor then manage the investments, programs, and grantmaking policies of private foundations, thus permitting donors to retain control over funds expenditure.

These non-profit organizations can operate directly or through grants to other organizations, which must also be tax-exempt. Education is one of the tax-exempt areas to which they donate, taking the largest share with around 23 percent of the transactions and 26 percent of the funds in 2016. In practice, most private foundations act as grantmaking foundations, which means they fund projects from other institutions. According to IRS data, there were 82,380 grantmaking foundations with total revenue of $105 billion in 2016, holding investments valued at $800 billion. In contrast, there were only 9,092 operating foundations.

Most domestic private foundations are subject to an excise tax on their net investment income to avoid foundations from indefinitely accumulating resources without making contributions. A substantial initial endowment often funds private foundations, later depending on investment income to support their activities. The areas to which private foundations can donate explicitly exclude contributions to political campaigns. Likewise, private foundations cannot "substantially" engage in lobbying, but they can do it under specific circumstances. In particular, private foundations are allowed to lobby in their activity area under strictly limited circumstances. [3]

The Internal Revenue Service (IRS) requires all private foundations to submit information annually. This information is considered public records since 2000, when new legislation made

[3] If private foundations participate in lobbying, they must pay a 20 percent tax for such expenditures, including a fraction possibly charged to managers. If the expenditures are considered substantial, private foundations risk losing their tax-exempt status.

this information available to public access. This regulation aimed to allow for more transparency in their operation and transactions by requesting information to be filled in a form entitled "Return on Private Foundation," or *990-PF*. This form includes information about each foundation's assets and income, financial activities, trustees and officers, and most importantly, a list of all grants awarded each fiscal year, along with a description of the gift.

The data from financial transactions of private foundations comes from two different sources. Firstly, FoundationSearch compiles the information from filed tax forms into a single dataset that contains transaction-level data on contributions. This data source is complemented with information made public by the IRS that includes 990-PF Forms of all private foundations that filed electronically between 2013 and 2020.

FoundationSearch's dataset includes over 120,000 foundations and charitable organizations, focusing on the largest foundations in the US and including transactions over $4,000. Panel (a) of Figure 1 contrasts the number of foundations in the dataset with those reported by the IRS using administrative data. In all years except around 2008, the number of foundations in the dataset resembles that of larger foundations in IRS data (defined as having assets over $100 thousand in assets). In this dataset, foundations are only observed if they have made contributions in a given year, while IRS administrative data includes all foundations regardless of whether they are active in a given period. The decline in donations after the economic crisis of 2008 hence explains part of the difference in data coverage in that period, mainly due to donors' diminished contributions. The transactions' data extract used in this study includes yearly transactions from 2000 to 2017. It has data for 13 million transactions, 3.2 million of which are classified as supporting education. This number corresponds to an average of 15.9 transactions per year per foundation, 3.77 on average going to education. The total amount adds up to $1.1 million per year per foundation (median $83K), of which $300K go to education (median $10K). Panel (b) of Figure 1 reveals that the average matching rate of transactions was low but stable across years. This low matching rate reflects that a large share of donations goes to K-12 education and that the matching algorithm is tuned to prioritize precision (i.e., that the identified transactions are correct) over coverage.

Although the IRS gives a unique identification number to all foundations, the 990-PF forms

filled by private foundations only include the name of the institution that received the donation. The grantees' names reported in the 990-PF Forms are then matched to the official or alias name to identify transactions aimed at universities. This procedure is implemented using fuzzy-matching in three steps, striving to improve the precision of the process. First, potential matches are detected using $n-grams$ of length 4[4] combined with inverse frequency weighting of these $n-grams$. This procedure yields a set of potential matches between universities and grantees' names. [5] Finally, supervised learning (random forest) with a manually labeled set of matches is used to improve matching precision. Model features include several string comparison measures, accounts for words' relative frequency, and common word abbreviations.

The name-matching algorithm identifies 807,023 transactions where universities are the beneficiaries, donated by 36,614 foundations. The match rate relative to all the transactions classified as *education* is 36.7 percent and is stable across years. The average amount matched per year is $8.96 billion. In comparison, the total given to education per year averages $24.45 billion.

3.2 Private Foundations Ideology

The political preferences of faculty and board members of private foundations are measured by their contributions to political campaigns. Bonica (2019) shows that donation-based map policy preferences for several issues and even allows discerning between the views of members of the same party. As part of the required public record of private foundations, these organizations have to declare the board members' names and some other key data. While this information is collected annually by the IRS, the dataset only has board members' as of 2017-18. The matching process uses the directors' names and geographical data to match with data on political ideologies, called common-space campaign finance scores (CFScores) produced by Bonica (2014). Bonica's data estimates an ideal position for all political contributors based on the supported candidates' characteristics. To the extent that contributors to political campaigns pay at least

[4] $N-grams$ correspond to all combinations of length n that can be extracted from each string.

[5] Matches where the reported state of the recipient differs from that of that university are excluded from the analysis. Some of these mismatches may be effectively universities where the private foundation entered the grantee's state erroneously or inaccuracies in data transcription. Inspection of these matches reflects that a larger proportion of them correspond to incorrect matches, so they are dropped from the sample.

some consideration to candidates' ideology, these campaign contributions should reflect the contributors' views. Since this dataset uses contributions to political campaigns with cycles lasting two years, all the analysis collapses data every two years to capture an entire election cycle.

The names' matching algorithm first matches unique names from the campaign contributions and directors dataset. Sequentially more restrictive criteria are then applied to match with foundations' reported zip-code, city, and state.[6] Among foundations that contributed to education, 54 percent of the directors are matched to political contributors. Figure 2 displays the distribution of political views for board members from private foundations and the average and median at the foundation level. The figure shows that board members who contributed to political campaigns focus on candidates away from the center. Their political positions are more polarized than those of the average population. The comparison of director and foundation-level data also evidences that boards tend to group directors of similar ideologies, based on the dispersion observed at the foundation level.

Private foundations' views are measured by the *average* of the scores of the board members. However, the results are generally robust and consistent when using the median instead. Directors without a match in the CFScores dataset are omitted from the final analysis. This poses the problem of maintaining in the sample those foundations whose directors are more actively involved or interested in politics, as reflected by their donations to political campaigns. However, this is precisely the group that is more prone to donate to universities in a politically driven way. Foundations that donated to higher education are in general larger (in terms of assets, income, and givings), as reflected by the comparison in Table 1. They are also more right-leaning than the rest of the foundations and more likely to hold comparatively more extreme views.

3.3 Faculty Positions

The FEC regulations on contributions to political campaigns request campaign contributors that exceed $200 to report their employer, position, donated amount, and recipient. This information

[6] Board members can live in a different area than where the foundation is located. Potential matches where location reported in the campaign contributions and private foundations data mismatch are omitted to avoid false positives, unless the name has a unique match.

allows tracking political contributions made by members of each university's faculty.[7]

Despite the requirement to include employers' data, several contributors use abbreviations or poorly formatted names. To tackle this, the matching process follows the same steps used to match university and grantees' names, using $n-grams$, inverse probability weighting, and supervised learning. University-level views and then summarized using the average of all professors belonging to each institution. The median of these contributions is also used as a robustness measure, which is less sensitive to changes in contribution patterns.

Several studies focus on American professors' political views, particularly by sociologists starting in the post-war era, when higher education surged. Studies have found academics to be predominantly liberal (N. Gross and Simmons (2007), Klein and Stern (2005); Rothman, Lichter, and Nevitte (2005)). They have also found large variations across fields. Social sciences are more democratic-leaning than physical sciences, and fields like economics and political science are generally more conservative among the social sciences. Consistently with earlier results, faculty ideologies in the contributions' dataset are highly left-skewed, with most schools leaning liberal. However, since the method used in this study for linking university faculty with their institution relies on the reported employer, it is not suitable to separate faculty by their respective departments. Instead, the analysis explores the relative importance of fields within a university and the declared use of each grant's funds to observe whether department differences can explain the perceived differences.

3.4 Universities Characteristics

Data on university outcomes come from the *National Center for Education Statistics* (NCES). The data includes university-year level data from 2000 to 2018, including institutional characteristics, enrollment, demographics, admission requirements and scores, financial aid, and faculty composition. The sample used in the analysis consists of all public and private not-for-profit schools focusing on programs of 2 and 4 years long. These are the primary recipients of donations, given

[7]Students occasionally report their universities in the employer category. These cases are identified by the "position" field and excluded from the analysis.

that for-profit schools can only receive donations under very limited circumstances. Schools with programs of less than two years rarely receive donations. Since Bonica's dataset of campaign contributions is grouped as the cumulative of two years, the universities dataset is only used for even years. The final dataset contains 37,035 university-year observations, ranging between 3,610 and 4,080 per year.

Two additional sources complement the previous data. First, NCES data is linked using school identifiers with information from the *Voluntary Support for Education Survey*, made by the *Council for Advancement and Support of Education* (CASE). This survey collects data on fundraising at US public and private colleges and universities. Participation is voluntary and self-reported, and it has been conducted since 1957. This dataset permits tracking factors associated with more vulnerability to universities' independence, such as higher reliance on donations or a lower endowment per student. Finally, this is combined with data from *USNews* Universities and Colleges Ranking, which collects ranking information for the whole relevant period and links the names to the NCES identifiers (*ipedsid*).

4 Empirical Approach

Several factors play a role in the decision of each private foundation of deciding grantees and the amounts donated to each one of them. The following model is estimated to capture the university-level relationship between ideologies of donors and recipients:

$$FacultyCFScore_{its} = \alpha + \beta PrivFoundCFScore_{it} + \omega X_{it} + \eta_t + \nu_s + \epsilon_i t \tag{1}$$

Where Y_{its} is the *outcome* of university i in year t from state s, D_{it} is the distance between political ideology of donors and university i in year t, X_{it} are covariates of university i in year t, η_t and ν_s are year and university fixed effects, and ϵ is an error term. In this case, the exploited variation then comes from comparatively more conservative or liberal universities, contrasted to other universities or colleges within the same state. In particular, this comparison assesses whether conservative (liberal) colleges receive funding from relatively more conservative (liberal) donors

within their states.

Complementary to the previous approach, the following model compares actual donations from private foundations with a set of possible choices for each foundation. The choice set exploits administrative data to construct a set containing all universities within each foundation's state. Once the choice set is constructed, the following model is estimated:

$$Y_{itf} = \alpha + \beta D_{itf} + \omega_{it} + \nu_{ft} + \epsilon \tag{2}$$

Where Y_{itf} is the *amount donated* or a dummy indicating donations to a university i in year t by foundation f and D_{itf} is the ideological distance between donor f and university i in year t. The terms ω_{it} are university-year fixed effects to allow for potential common preferences for certain universities and yearly changes that affect all donors (e.g., fundraiser campaigns by universities). Resembling a conditional logit model, ν_{ft} are foundation-time fixed effects, which then produces comparisons within each foundation's choice set in a given year.

Several specifications include a set of covariates when indicated in the table. These regressions control by institutional characteristics, such as institution sector, size, whether it has a hospital or medical degree, HBCU states, and religious affiliation; financial aid, including the average federal, state/local, or institutional grant amounts, and average student loans per student, as well as the percent of the student receiving these benefits; selectivity, such as the number of applicants, admitted students, and enrolled students by gender; application submission requirements: GPA, high school ranking, high schools records, admission tests; quality indicators: ACT/SAT 25^{th} and 75^{th} percentiles (when requested), USNews Ranking (when available); students demographics, split by graduate and undergraduate; and the number of faculty by tenure status.

5 Results

5.1 Donors Preferences

The first step towards understanding if there is political drive in contributions to universities is analyzing if universities' ideologies are predictive of its donors' ideology. Figure 3 presents visual evidence supporting this idea, indicating that liberal schools receive funds from foundations all over the spectrum. In contrast, conservative schools receive most of their funds from conservative donors. This pattern is likely to occur because top-ranked schools are more liberal, driving donors to give despite the more considerable distance to their personal views. Indeed, the relationship between donors and grantees ideology is graphically presented in Figure 4, splitting faculty and donors views according to their position in the ideologies' distribution. Panel (a) in this figure shows that universities from the upper (lower) quartile receive contributions from donors markedly more conservative (liberal) than other higher education institutions. Conversely, Panel (b) evidences the large explanatory power of foundations' ideology on the ideology of the colleges and universities they support.

Complementing the previous figure, Table 2 reports the results of regressing the weighted average of the contributors' ideology against universities' measured ideology. The first two columns show that shifting faculty's average positions by one standard deviation is associated with an increase between 10.3 and 14.2 percent of a standard deviation in donor ideology, even after accounting for state and year fixed effects and several covariates. The following two columns use the CFScore of the chief officer reported by each institution to the National Center of Educational Statistics (NCES) instead of faculty donations as a robustness measure. Although the sample is considerably smaller, since not all chair officers contribute to political campaigns, the effect's magnitude is similar. Finally, the last three columns present alternative specifications, including other fixed effects. The estimated effect of faculty ideology diminishes when including school fixed effects, reaching 1.9 percent. This decrease is expectable because the variation in such cases comes from within a school over time, and the nature of political positions of faculty makes it challenging to track fluctuations and their timing.

The previous results show that the ideology of universities' faculty members has explanatory power over its donor's ideology. To inquire into what groups are more exposed to political incentives, the results in Table 3 analyze the intensity of this relationship in different groups depending on school-level characteristics. Consistently with what would occur if larger donors give in a more directed way that could influence institutions' outcomes (e.g., research or student formation), the association between universities and donors views is larger for universities that received a more sizeable amount from foundations' donations. A one percent increase in the total foundation's donations to a university increases the ideologies correlation 75 base points, suggesting that larger donations could be deployed in a more strategic way. Similarly, the association is smaller for universities where faculty has more diverse views, as reflected by the standard deviation of their CFScores.

The remaining columns of Table 3 show that public schools receive contributions from donors relatively less similar to them. Since public universities are usually larger, one possible explanation goes along faculty's higher diversity within such universities. On the other hand, these institutions rely less heavily on private donations, making them less susceptible to be influenced through their resource dependence. Since religious affiliation is often interlinked with political affiliations, an alternative source for this correlation could arise from religious affiliation. The last column in this table shows that although the association is more robust for religious schools, it is still present in the rest of the schools. Moreover, these patterns remain even when including covariates for several religious sub-denominations self-reported by the academic institutions (equivalent information is not available for donors).

The correlation is also higher for top schools, defined as having appeared in the top 100 colleges or universities according to USNews Ranking. Concerning this last finding, Figure 5 indicates that top-ranked colleges and universities receive funding from more left-leaning donors, in part driven by the more liberal ideology of its faculty. Panel (b) in turn illustrates that although the donations are concentrated in highly ranked school, as demonstrated by the steep slope in the left-most part of the distribution, they also trickle to less renowned institutions. The analysis in Table 4 goes more in-depth into this finding, using three other measures of school quality,

which is in turn closely related to its prestige. Using schools average SAT and ACT scores for the 25^{th} and 75^{th} percentiles, the analysis shows that increases in admission scores by one standard deviation increase the effect of school ideology on donations between 5.3 and 6.2 base points, consistent across the different quality measures. Again, this would be what we expected since these schools are considerably more influential in the policy domain. Indeed, their perceived political positions are more salient than in small or relatively unknown schools, where donations are more prone to have different purposes.

So far, the analysis has focused on establishing the stylized fact that donors prefer to contribute to universities whose faculty share similar ideas than their own. Despite this, several mechanisms could explain this correlation. The next section exploits transaction-level data to estimate donors' preferences for political ideologies to dig further into this issue. Table 5 reports the results of this analysis. Ideological distance is defined as the absolute value between the ideology of foundations' board members and faculty. The choice sets includes all the universitiesin the sample within the same state. The analysis includes foundation-year fixed effects, as well as university fixed effects and university-year fixed effects. This approach then compares actual donations made by private foundations with alternatives in each university's choice set. Consequently, the parameters are estimated using variation within each year-choice set, while university fixed effects capture time unvarying universities' characteristics and features that make them more attractice to donors independently of their political ideology.

The results in Panel (a) of Table 5 show that an increase of one percent in the ideological distance reduces donations' amount between 1.1 and 1.5 percent. Moreover, columns (2) and (3) show that the results are robust to adding university level fixed effects and university-year fixed effects, indicating that the results are not driven by aggregate level preferences for each university (either fixed or time changing). Columns (4) through (6) further show that the probability of donating to a university decreases between 30 and 40 basis points when increasing ideological distance by one percent. Furthermore, the results in Panel (b) indicate that the impact of ideology is robust to an alternative measure of university ideology, as reflected by the ideology individuals holding high administrative roles such as heads of departments and presidents. While the results

are more nuanced, an increase in one percent in the ideological ideology decreases donations' amount between 0.6 and 0.9 percent.

Figure 6 then assess the implications of the estimated ideology-contributions elasticity of private foundations. The model includes a degree 3 polynomial on distance allowing for slopes to change by donors' ideology deciles (i.e., allowing donors of different political views to value ideologically differently). In particular, the figure exploits the current distribution of education supporters to estimate the share of universities for which the model predicts that a leftward or rightward move by one standard deviation (i.e., becoming more liberal or more conservative, respectively) would statistically significantly increase their total contributions. This analysis suggests that most left and right-leaning universities would increase their donations under current circumstances if they adopt more extreme positions. This surges indirectly because of the polarized political ideologies of supporters and the comparatively scarce share of center-leaning donors. In turn, this places incentives to universities to adopt more extreme postures, permeating external donors' polarization into higher education. Given that distinct donors operate in different market segments or geographical areas, and consequently have different choice sets, the model allows universities with similar ideologies to face different responses to a shift in their positions. Since the prediction assumes that choice sets are maintained and that only one institution changes its position at a time, the estimates represent partial equilibrium effects.

The evidence above focuses on the association between donors' and recipients' ideologies, as reflected by their contributions to political campaigns. Following the theoretical framework's insights, we would expect ideology to be more relevant when the outcomes are more dependent on the school ideology. To elucidate the importance of such mechanisms, one would ideally want to use department-level information on donations to observe whether this phenomenon occurs in particular areas of interest to the donor. The IRS requires private foundations to describe the objective of each grant. In the dataset, donations description is available mostly available for years starting in 2010. The descriptions are manually labeled into the categories of Scholarships, Research, Medicine-STEM, Policy-relevant, and Unrestricted funds. Figure 7 displays the average declared destination of the funds weighted by the donation amount. The sample contains

418,326 grant descriptions, equivalent to 94 percent of the donations in the analysis subsample. Years before 2010 are excluded because data on grant descriptions has a substantially smaller coverage in previous years. [8] The most common category is unrestricted funds, which groups all descriptions that did not specify a specific goal for the funds, representing 61 percent of the donations. In contrast, the proportion reporting donations to specific areas such as Medicine-STEM or Social Sciences is small, reaching just 9 percent of the transactions altogether or 16 percent if weighted by contribution amount.

5.2 Grants Purpose

To understand which donors are those that more highly value ideological distance, the results in Table 6 explore the strength of the association between ideological distance and donation amounts depending on categories to which donors contribute more intensively. Since the classification of funds objectives can only be made for transactions that effectively occur, the classification is not computable for elements in the choice set that did not receive funding in a given year. Instead, the analysis compares donors' preferences depending on whether they contributed to each area on a given year. In particular, it shows the interaction of ideological distance with a dummy variable indicating if each foundation to a specific area each on that year. [9]

The estimation in Table 6 shows that private foundations which give a larger proportion to research act according to valuing ideology more deeply than other donors. However, this phenomenon appears in policy-relevant areas and fields related to exact sciences, where political opinions arguably play a minor role. In contrast, those who donate to scholarships seem to be less concerned with universities' perceived ideology.

Since the variation in this case comes from comparing different donors' choice patterns, other factors correlated with each of these variables also contribute to explain such differences. To some extent, this pattern could capture the fact that larger universities are more likely to do

[8] For years before 2010 the sample contains 249,629 grant descriptions for 417,740 donations from 2000 to 2008. The proportion of transactions where grants' description is available ranges from 28 percent in 2000 to 64 percent in 2008.

[9] Alternatively, we could compare the donations made by each donor depending on the destination of the funds. Unfortunately, in that case the variation would come exclusively from those donors who contributed to multiple categories.

research, given that the correlation between views of donors and faculty was higher among top schools. Table **??** adds an interaction term with a dummy variable identifying schools on the top 10 percentile of SAT scores. The results largely hold, but the coefficient of the policy-relevant interaction is reduced and no longer significant.

As a complement to the declared use of funds, the results in Table 8 compare donors by the destination of foundations donations reported by universities in the Voluntary Support of Education Survey (VSE). The first column of this table shows that ideological distance decreased donations an additional 0.9 percent among schools whose foundations' contributions per student to current operations are one percent higher. The second column corroborates this finding, indicating that an increase of one unit in the proportion of foundations' donations going to current operations –as opposed to capital or endowment– increases the magnitude of the preference for similar ideologies 0.8 percent. Since current operations funds are directed toward more specific goals than endowments, this corroborates the previous funding that donors who contribute to more ideologically similar institutions target narrower areas of spending. Subsequent columns of this table further divide these expenditures according to whether the universities reported them as related to research, student aid, public service, academic services, or other areas. Consistently with the results found using grants' description data, the association between donated amount and ideological distance is higher for universities which reported that foundations donated a greater proportion to research. Moreover, it was also smaller for those contributing to student aid as determined when exploiting grant descriptions' data. These results are robust to examining the decision to donate instead of the donations amount.

As pointed out by the theoretical framework, a private foundation attempting to influence a school would, all else equal, target institutions that are more susceptible to be influenced. Table 9 explores this dimension by comparing universities according to their endowment levels and the size and proportion of their funding granted by foundations. This shows that universities with larger endowments receive donations from donors that are ideologically closer to them. However, this association fades if we simultaneously control by whether the school can be considered top school. The analysis also show that the impact of ideological distance is more substantial for

foundations donating to schools that receive a larger proportion of their gifts from foundations. Likewise, ideology has a more significant influence on private foundations donating to schools that received more donations for restricted purposes. This evidence reflects what we would expect to observe if donors who are more politically active are also those who act more strategically and prefer more controlled ways of support.

5.3 Foundation Characteristics

The analysis so far focused on preferences of privates foundations as a whole, despite considerable heterogeneity in their attributes. Private foundations present substantial differences in their total assets and income, governance practices, openness to the public, among others. The first two columns of Table 7 show the estimated change in donations in response to an increase of one percent in the ideological distance for different levels of assets and income, respectively.[10] This analysis shows that large donors choose universities that are considerably more ideologically aligned to them. In particular, a one percent increase in ideological distance is associated with a reduction in foundations' donations of 0.8 percent among foundations with less than 500 thousand dollars in assets. In contrast, this association reaches 6 percent among foundations with more than 50 millions in assets. The results are similar when measuring this in terms of income, but the differences are even starker. Moreover, these results are robust to analyzing the decision to donate or not instead of the amount of the donations.

One possible explanation for the different behavior of larger and small donors is that the former may have stronger preferences for universities' political positions. However, this is also consistent with what would occur if private foundations with larger financial capabilities internalize a higher probability of affecting the recipient institutions. On the other hand, larger foundations also donate more actively to research, while proportionally less money goes to scholarships or unrestricted funds. Specifically, the proportion of grants classified as unrestricted reaches 75 percent in the group with the smallest assets, while this is only 61 percent among the foundations in the largest assets bin. While Reckhow and Snyder (2014) find evidence suggesting that

[10]The categories used in the data are based on 9 original categorical groups in the data, where adjacent groups were combined. Each group is combined to include the closest proportion to 25 percent of the sample in each group.

the largest foundations contributing to education have converged around "jurisdictional challengers", Ferrare and Reynolds (2016) analyze a small sample of less prominent foundations and find that they have also adopted some elements of major foundations, but present much more heterogeneous strategies.

No statistically significant differences are found is the association between donors and recipients ideological distance when interacting with foundations' views or standard deviation in faculty views, although this does not rule the existence of more intricate patterns of this association. As expected, trusts display a smaller correlation between the political ideology of its board and that of their recipients. This reflects the fact that a larger proportion of their donations obey the decisions of individuals outside their directors' board.

6 Conclusion

Higher education institutions in the U.S. have sustainably relied on funds contributed voluntarily by the public to enhance their academic and research activities. A growing share of such funds come from private foundations, reaching one-third of research funding raised in 2016 by elite universities. Unfortunately, organizations or even individuals depending on external resources are susceptible to be captured by the interest of those managing the funds. If the identity or ideology of the supporters of higher education institutions are similar to that of the general population, then the overall of this channel can be expected to dilute. In reality, most private foundations are funded by extremely wealthy donors, whose views are unaligned with those of the general public.

The evidence presented here suggests that private foundations, just as we would expect them to, donate strategically to universities that share their ideology. More importantly, they do so more intensively when supporting research activities, enhancing their potential to affect policy decisions outside academia. In turn, the results imply that reliance on donors' contributions constitutes a mechanism through which polarization in the general society could permeate academic research and formation.

These results do not imply that universities should stop seeking or even accepting funds from private foundations. Their contributions have significantly improved U.S. higher education and hopefully will continue to do so. Instead, this aims to raise attention to this channel's potential to influence the higher education system and academic research, threatening its impartiality. Given the massive increase in donations from private foundations in previous years and the increasing societal polarization, together with reducing alternative sources such as state funding, it is to be expected that the relevance of these mechanisms will continue to grow in the future.

Universities aiming to reduce their dependence on particular institutions or individuals have to ensure that funds originate from a larger population, usually alumni, or from non-discretionary donations. The more dependent a university becomes on a small pool of donors, the more susceptible these institutions are to be captured. Likewise, the more discretionary and specific that donors are when contributing to universities, the riskier this becomes. There are obvious differences between donors that assign funding discretionarily to specific projects and those that donate irrespective of their specific purposes. In addition to this, higher reporting standards that improve accountability for tax-exempt foundations would help address this, yet only partially. While the IRS requires all private foundations to describe the grants they deploy in their tax-reports, the current standard results are often uninformative. Taking together, policies in this direction could diminish the threat this channel poses to educational institutions' impartiality and independence.

References

Andreoni, James and A Abigail Payne (2003). "Do government grants to private charities crowd out giving or fund-raising?" In: *American Economic Review* 93.3, pp. 792–812.

Ansolabehere, Stephen, John M De Figueiredo, and James M Snyder Jr (2003). "Why is there so little money in US politics?" In: *Journal of Economic perspectives* 17.1, pp. 105–130.

Barnes, Deborah E. (May 20, 1998). "Why Review Articles on the Health Effects of Passive Smoking Reach Different Conclusions". In: *JAMA* 279.19, p. 1566. ISSN: 0098-7484. DOI: 10.1001/jama.279.19.1566. URL: http://jama.jamanetwork.com/article.aspx?doi=10.1001/jama.279.19.1566 (visited on 12/03/2020).

Bekelman, Justin E., Yan Li, and Cary P. Gross (Jan. 22, 2003). "Scope and Impact of Financial Conflicts of Interest in Biomedical Research: A Systematic Review". In: *JAMA* 289.4. Publisher: American Medical Association, pp. 454–465. ISSN: 0098-7484. DOI: 10.1001/jama.289.4.454. URL: https://jamanetwork.com/journals/jama/fullarticle/195843 (visited on 08/21/2020).

Bekkers, René and Pamala Wiepking (Oct. 1, 2011). "A Literature Review of Empirical Studies of Philanthropy: Eight Mechanisms That Drive Charitable Giving". In: *Nonprofit and Voluntary Sector Quarterly* 40.5. Publisher: SAGE Publications Inc, pp. 924–973. ISSN: 0899-7640. DOI: 10.1177/0899764010380927. URL: https://doi.org/10.1177/0899764010380927 (visited on 12/05/2020).

Bertrand, Marianne, Matilde Bombardini, Raymond Fisman, Bradley Hackinen, et al. (Dec. 2018). *Hall of Mirrors: Corporate Philanthropy and Strategic Advocacy*. w25329. Cambridge, MA: National Bureau of Economic Research, w25329. DOI: 10.3386/w25329. URL: http://www.nber.org/papers/w25329.pdf (visited on 05/14/2019).

Bertrand, Marianne, Matilde Bombardini, Raymond Fisman, and Francesco Trebbi (2018). "Tax-Exempt Lobbying: Corporate Philanthropy as a Tool for Political Influence". In: p. 72.

Bombardini, Matilde and Francesco Trebbi (2012). "Competition and political organization: Together or alone in lobbying for trade policy?" In: *Journal of International Economics* 87.1, pp. 18–26.

Bonica, Adam (Apr. 2014). "Mapping the Ideological Marketplace: MAPPING THE IDEOLOGICAL MARKETPLACE". In: *American Journal of Political Science* 58.2, pp. 367–386. ISSN: 00925853. DOI: 10.1111/ajps.12062. URL: http://doi.wiley.com/10.1111/ajps.12062 (visited on 09/13/2019).

— (Jan. 2019). "Are Donation-Based Measures of Ideology Valid Predictors of Individual-Level Policy Preferences?" In: *The Journal of Politics* 81.1, pp. 327–333. ISSN: 0022-3816, 1468-2508. DOI: 10.1086/700722. URL: https://www.journals.uchicago.edu/doi/10.1086/700722 (visited on 11/23/2020).

Bonica, Adam and Howard Rosenthal (2018). *Increasing Inequality in Wealth and the Political Expenditures of Billionaires*. Tech. rep. mimeo.

Brulle, Robert J. (Feb. 2014). "Institutionalizing delay: foundation funding and the creation of U.S. climate change counter-movement organizations". In: *Climatic Change* 122.4, pp. 681–694. ISSN: 0165-0009, 1573-1480. DOI: 10.1007/s10584-013-1018-7. URL: http://link.springer.com/10.1007/s10584-013-1018-7 (visited on 09/20/2019).

Campbell, Colin and Jonathan Horowitz (Jan. 1, 2016). "Does College Influence Sociopolitical Attitudes?" In: *Sociology of Education* 89.1. Publisher: SAGE Publications Inc, pp. 40–58. ISSN: 0038-0407. DOI: 10.1177/0038040715617224. URL: https://doi.org/10.1177/0038040715617224 (visited on 08/03/2020).

Caplan, Bryan (2002). "Systematically biased beliefs about economics: Robust evidence of judgemental anomalies from the survey of Americans and economists on the economy". In: *The Economic Journal* 112.479, pp. 433–458.

Carrick-Hagenbarth, Jessica and Gerald A Epstein (2012). "Dangerous interconnectedness: economists' conflicts of interest, ideology and financial crisis". In: p. 21.

Chilton, Adam S and Eric A Posner (2016). "An Empirical Study of Political Bias in Legal Scholarship". In: p. 38.

Ferrare, Joseph J. and Katherine Reynolds (Nov. 2016). "Has the Elite Foundation Agenda Spread Beyond the Gates? An Organizational Network Analysis of Nonmajor Philanthropic Giving in K–12 Education". In: *American Journal of Education* 123.1, pp. 137–169. ISSN: 0195-6744, 1549-

6511. DOI: 10.1086/688165. URL: https://www.journals.uchicago.edu/doi/10.1086/688165 (visited on 11/26/2020).

Fouirnaies, Alexander and Andrew B Hall (2018). "How do interest groups seek access to committees?" In: *American Journal of Political Science* 62.1, pp. 132–147.

Fowler, Anthony, Haritz Garro, and Jörg L Spenkuch (2020). "Quid pro quo? corporate returns to campaign contributions". In: *The Journal of Politics* 82.3, pp. 000–000.

Gordon, Roger and Gordon B Dahl (May 1, 2013). "Views among Economists: Professional Consensus or Point-Counterpoint?" In: *American Economic Review* 103.3, pp. 629–635. ISSN: 0002-8282. DOI: 10.1257/aer.103.3.629. URL: https://pubs.aeaweb.org/doi/10.1257/aer.103.3.629 (visited on 11/23/2020).

Gross, Neil and Ethan Fosse (Mar. 2012). "Why are professors liberal?" In: *Theory and Society* 41.2, pp. 127–168. ISSN: 0304-2421, 1573-7853. DOI: 10.1007/s11186-012-9163-y. URL: http://link.springer.com/10.1007/s11186-012-9163-y (visited on 08/06/2020).

Gross, Neil and Solon Simmons (2007). "The social and political views of American professors". In: *Working Paper presented at a Harvard University Symposium on Professors and Their Politics*.

Grossman, Gene M and Elhanan Helpman (2001). *Special interest politics*. MIT press.

— (Apr. 1, 1996). "Electoral Competition and Special Interest Politics". In: *The Review of Economic Studies* 63.2. Publisher: Oxford Academic, pp. 265–286. ISSN: 0034-6527. DOI: 10.2307/2297852. URL: http://academic.oup.com/restud/article/63/2/265/1549354 (visited on 12/03/2020).

Jelveh, Zubin, Bruce Kogut, and Suresh Naidu (2014). "Political Language in Economics". In: *SSRN Electronic Journal*. ISSN: 1556-5068. DOI: 10.2139/ssrn.2535453. URL: http://www.ssrn.com/abstract=2535453 (visited on 06/16/2020).

Kam, Cindy D and Carl L Palmer (2008). "Reconsidering the effects of education on political participation". In: *The Journal of Politics* 70.3, pp. 612–631.

Klein, Daniel B and Charlotta Stern (2005). "Professors and their politics: The policy views of social scientists". In: *Critical Review* 17.3-4, pp. 257–303.

Leeson, Peter T, Matt E Ryan, and Claudia R Williamson (2012). "Think tanks". In: *Journal of comparative economics* 40.1, pp. 62–77.

Lexchin, Joel et al. (May 29, 2003). "Pharmaceutical industry sponsorship and research outcome and quality: systematic review". In: *BMJ* 326.7400. Publisher: British Medical Journal Publishing Group Section: Paper, pp. 1167–1170. ISSN: 0959-8138, 1468-5833. DOI: 10.1136/bmj.326.7400.1167. URL: http://www.bmj.com/content/326/7400/1167 (visited on 12/03/2020).

List, John A (May 2011). "The Market for Charitable Giving". In: *Journal of Economic Perspectives* 25.2, pp. 157–180. ISSN: 0895-3309. DOI: 10.1257/jep.25.2.157. URL: http://pubs.aeaweb.org/doi/10.1257/jep.25.2.157 (visited on 09/04/2019).

Mariani, Mack D. and Gordon J. Hewitt (2008). "Indoctrination U.? Faculty Ideology and Changes in Student Political Orientation". In: *PS: Political Science and Politics* 41.4. Publisher: [American Political Science Association, Cambridge University Press], pp. 773–783. ISSN: 1049-0965. URL: https://www.jstor.org/stable/20452310 (visited on 08/03/2020).

Mayer, Alexander K. (July 1, 2011). "Does Education Increase Political Participation?" In: *The Journal of Politics* 73.3. Publisher: The University of Chicago Press, pp. 633–645. ISSN: 0022-3816. DOI: 10.1017/S002238161100034X. URL: http://www.journals.uchicago.edu/doi/full/10.1017/S002238161100034X (visited on 12/03/2020).

Mayer, Jane (2017). *Dark money: The hidden history of the billionaires behind the rise of the radical right*. Anchor Books.

Mayer, Thomas (Jan. 1, 2001). "The role of ideology in disagreements among economists: a quantitative analysis". In: *Journal of Economic Methodology* 8.2. Publisher: Routledge _eprint: https://doi.org/10.1080/13501780110047309, pp. 253–273. ISSN: 1350-178X. DOI: 10.1080/13501780110047309. URL: https://doi.org/10.1080/13501780110047309 (visited on 11/23/2020).

Murray, Fiona E (2013). "Evaluating the Role of Science Philanthropy in American Research Universities". In: p. 42.

Rathbun, Brian (Sept. 2012). "Politics and Paradigm Preferences: The Implicit Ideology of International Relations Scholars1: Politics and Paradigm Preferences". In: *International Studies Quarterly* 56.3, pp. 607–622. ISSN: 00208833. DOI: 10.1111/j.1468-2478.2012.00749.x. URL: https://academic.oup.com/isq/article-lookup/doi/10.1111/j.1468-2478.2012.00749.x (visited on 11/23/2020).

Reckhow, Sarah (2012). *Follow the money: How foundation dollars change public school politics*. Oxford University Press.

Reckhow, Sarah and Jeffrey W. Snyder (May 1, 2014). "The Expanding Role of Philanthropy in Education Politics". In: *Educational Researcher* 43.4. Publisher: American Educational Research Association, pp. 186–195. ISSN: 0013-189X. DOI: 10.3102/0013189X14536607. URL: https://doi.org/10.3102/0013189X14536607 (visited on 11/26/2020).

Redding, Richard E. (Oct. 1, 2013). "Politicized Science". In: *Society* 50.5, pp. 439–446. ISSN: 1936-4725. DOI: 10.1007/s12115-013-9686-5. URL: https://doi.org/10.1007/s12115-013-9686-5 (visited on 11/23/2020).

Rothman, Stanley, S Robert Lichter, and Neil Nevitte (2005). "Politics and professional advancement among college faculty". In: *The Forum*. Vol. 3. 1. De Gruyter.

Shanks, Megan Delphia (2018). "Taking It For Granted: How Private Foundations Structure Voice and Activity in a Policy Area". In.

Skocpol, Theda and Alexander Hertel-Fernandez (Sept. 2016). "The Koch Network and Republican Party Extremism". In: *Perspectives on Politics* 14.3. Publisher: Cambridge University Press, pp. 681–699. ISSN: 1537-5927, 1541-0986. DOI: 10.1017/S1537592716001122. URL: http://www.cambridge.org/core/journals/perspectives-on-politics/article/koch-network-and-republican-party-extremism/035F3D872B0CE930AF02D7706DF46EEE (visited on 11/24/2020).

Zingales, Luigi (2014). "Preventing economists' capture". In.

7 Tables

Table 1: Foundations Descriptive Statistics: Education Donors vs Non-Donors

		Mean		Difference
	Obs.	No Donation	Donated	D vs N-D
Log(Donations)	34,274	.	11.836	
Total Giving (log)	76,691	10.829	11.918	1.096***
				(0.013)
Total Assets (log)	76,411	13.320	14.340	1.078***
				(0.018)
Total Income (log)	76,145	11.849	12.951	1.141***
				(0.022)
Avg. CFScore	54,415	-0.077	-0.015	0.062***
				(0.007)
Republican (CF.avg $>$ 0.5)	54,415	0.275	0.308	0.033***
				(0.004)
Democratic (CF.avg $<$ -0.5)	54,415	0.342	0.314	-0.028***
				(0.004)
Total Directors	76,268	4.471	3.679	-0.792***
				(0.040)
Prop. of Matched Directors	76,268	0.419	0.549	0.130***
				(0.003)
No Matched Directors	76,268	0.344	0.208	-0.137***
				(0.003)

Notes: Sample size = 78,202. N Donors = 32,343. *** p<0.01, **p<0.05, *p<0.1. Donors classified as donating to a university at any year in the sample (2000 to 2018)

Table 2: Association Between Donors and Recipients Ideologies

	(1) Donor Ideology	(2) Donor Ideology	(3) Donor Ideology	(4) Donor Ideology	(5) Donor Ideology	(6) Donor Ideology	(7) Donor Ideology	(8) Donor Ideology
Professors Ideology	0.142***	0.103***			0.019*		0.047***	
	(0.014)	(0.014)			(0.010)		(0.008)	
Chair Officer Ideology			0.126***	0.051*		0.036		0.065**
			(0.024)	(0.028)		(0.028)		(0.028)
r2	0.282	0.319	0.294	0.369	0.003	0.028		0.424
N	15,843	11,317	3,976	2,609	15,843	3,976	15,843	2,529
Covariates	No	Yes	No	Yes	No	No	No	No
Fixed Effects	State	State	State	State	School	School	State + R.E.	State + R.E.

Notes: Each observation correspond to a university in a given cycle. Donor, Professors, and Chair Officers' ideology measured by their contributions to political campaigns (CFScores, standardized). Standard errors clustered at foundation school state level in parentheses. All regressions include cycle fixed effects. *** p<0.01 ** p<0.05 * p<0.1.

Table 3: Association Between Donors and Recipients Ideologies: Schools Characteristics

	(1) Priv. Found. Views	(2) Priv. Found. Views	(3) Priv. Found. Views	(4) Priv. Found. Views	(5) Priv. Found. Views	(6) Priv. Found. Views
Prof. Views	-0.022	0.154***	0.138***	0.096***	0.077***	0.098***
	(0.058)	(0.023)	(0.021)	(0.014)	(0.023)	(0.014)
Prof. Views × Total Found.	0.075**					
	(0.034)					
Prof. Views × Prof. Views StDev.		-0.078***				
		(0.019)				
Prof. Views × Public			-0.067**			
			(0.027)			
Prof. Views × Religious Affil.				0.060*		
				(0.033)		
Prof. Views × Four Years					0.040	
					(0.029)	
Prof. Views × TopSchool						0.122**
						(0.046)
r2	0.319	0.325	0.319	0.319	0.319	0.319
N	11,295	10,255	11,317	11,317	11,317	11,317

Notes: Each observation correspond to a university in a given cycle. Donor, Professors, and Chair Officers' ideology measured by their contributions to political campaigns (CFScores, standardized). Standard errors clustered at foundation school state level in parentheses. All regressions include covariates, the corresponding the uninteracted term, and cycle and state fixed effects. *** p<0.01 ** p<0.05 * p<0.1.

Table 4: University vs Donors Views: Quality Measures

	(1) Priv. Found. Ideology	(2) Priv. Found. Ideology	(3) Priv. Found. Ideology	(4) Priv. Found. Ideology	(5) Priv. Found. Ideology
Fac. CF (Cand)	0.181***	0.183***	0.175***	0.177***	0.250***
	(0.017)	(0.017)	(0.018)	(0.018)	(0.024)
SAT 75th	0.012				
	(0.019)				
Fac. CF (Cand) × SAT 75th	0.040***				
	(0.012)				
SAT 25th		0.001			
		(0.020)			
Fac. CF (Cand) × SAT 25th		0.045***			
		(0.013)			
ACT 75th			0.021		
			(0.015)		
Fac. CF (Cand) × ACT 75th			0.041***		
			(0.013)		
ACT 25th				0.004	
				(0.017)	
Fac. CF (Cand) × ACT 25th				0.031**	
				(0.015)	
Ranking					-0.016
					(0.040)
Fac. CF (Cand) × Ranking					0.042
					(0.029)
r2	0.349	0.349	0.321	0.320	0.361
N	7,873	7,874	7,774	7,776	2,067

Notes: Each observation correspond to a university in a given cycle. Donor, Professors, and Chair Officers' ideology measured by their contributions to political campaigns (CFScores, standardized). Standard errors clustered at foundation school state level in parentheses. All regressions include covariates, the corresponding uninteracted term, and cycle and state fixed effects. *** $p<0.01$ ** $p<0.05$ * $p<0.1$.

Table 5: Donors Preferences: Transaction Level Analysis

	(1) Donation log ($)	(2) Donation log ($)	(3) Donation log ($)	(4) Donated To Univ.	(5) Donated To Univ.	(6) Donated To Univ.
Panel (a): Faculty Average Position						
Distance (log)	-0.011***	-0.012***	-0.015***	-0.003***	-0.003***	-0.004***
	(0.001)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
r2	0.051	0.055	0.056	0.051	0.055	0.056
N	32029691	32029691	32029689	32029691	32029691	32029689
Panel (b): Chair Officer Position						
Distance Chair Officer (log)	-0.006***	-0.008***	-0.009***	-0.002***	-0.002***	-0.002***
	(0.001)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
r2	0.065	0.069	0.069	0.066	0.069	0.070
N	7098373	7098373	7098373	7098373	7098373	7098373
Found×Year	Yes	Yes	Yes	Yes	Yes	Yes
School	No	Yes	Yes	No	Yes	Yes
School×Year	No	No	Yes	No	No	Yes

Notes: Each observation correspond to a university-foundation transaction in the choice set of a foundation in a given cycle. Distance measures the absolute value of the difference between CFScore of the private foundation and that of the university. Standard errors clustered at foundation state level in parentheses. All regressions include cycle fixed effect. *** $p<0.01$ ** $p<0.05$ * $p<0.1$.

Table 6: Donors Preferences: Donors Comparison By Preferred Use of Funds

	(1) Contribution Amount	(2) Contribution Amount	(3) Contribution Amount	(4) Contribution Amount	(5) Contribution Amount
Distance	-0.054***	-0.042***	-0.042***	-0.041***	-0.052***
	(0.009)	(0.008)	(0.008)	(0.009)	(0.011)
Distance × Scholarships	0.036**				
	(0.017)				
Distance × Research		-0.106*			
		(0.060)			
Distance × Med-STEM			-0.075*		
			(0.040)		
Distance × Policy-Relevant				-0.156**	
				(0.074)	
Distance × Unrestricted					0.010
					(0.019)
r2	0.256	0.256	0.256	0.256	0.256
N	252,526	252,526	252,526	252,526	252,526

Notes: Each observation correspond to a university-foundation transaction in the choice set of a foundation in a given cycle. Distance measures the absolute value of the difference between CFScore of the private foundation and that of the university. Standard errors clustered at foundation state level in parentheses. Contribution amounts in logs. All regressions include cycle fixed effect. *** $p<0.01$ ** $p<0.05$ * $p<0.1$.

Table 7: Donors Preferences: Foundation Characteristics

	Donation log ($)	Donation log ($)	Donation log ($)	Donation log ($)	Donation log ($)	Donation log ($)	Donation log ($)
Distance (log)$\times(X < 500K)$	-0.008***	-0.008***					
	(0.002)	(0.001)					
Distance (log)$\times \in (500K - 5M)$	-0.009***	-0.012***					
	(0.001)	(0.002)					
Distance (log)$\times(X \in 5M - 50M)$	-0.016***	-0.023***					
	(0.003)	(0.003)					
Distance (log)$\times(X > 50M+)$	-0.059***	-0.090***					
	(0.007)	(0.010)					
Distance (log)			-0.015***	-0.015***	-0.016***	-0.017***	-0.014***
			(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Distance (log)$\times$ Foundation CF			0.001	0.001			
			(0.001)	(0.001)			
Distance (log)$\times$ Faculty Ideology SD					0.001		
					(0.001)		
Distance (log)$\times$ Trust						0.006***	
						(0.001)	
Distance (log)$\times$ Education Fund							-0.021**
							(0.008)
Bins Variable	Assets	Income					
r2	0.055	0.055	0.056	0.056	0.057	0.056	0.066
N	21462562	21462562	32029689	32029689	30046853	32029689	17765023

Notes: Each observation correspond to a university-foundation transaction in the choice set of a foundation in a given cycle. Distance measures the absolute value of the difference between CFScore of the private foundation and that of the university. Standard errors clustered at foundation state level in parentheses. Contribution amounts in logs. All regressions include cycle fixed effect. *** p<0.01 ** p<0.05 * p<0.1.

Table 8: Donors Preferences: Preferred Area of Contribution

	(1) Donation log ($)	(2) Donation log ($)	(3) Donation log ($)	(4) Donation log ($)	(5) Donation log ($)	(6) Donation log ($)	(7) Donation log ($)
Distance (log)	0.107***	-0.013***	-0.012***	-0.023***	-0.018***	-0.018***	-0.018***
	(0.020)	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)
Distance (log) × Found. CurrOps (log $)	-0.009***						
	(0.001)						
Distance (log) × Prop. CurrOps		-0.008***					
		(0.002)					
Distance (log) × Prop. Research			-0.037***				
			(0.004)				
Distance (log) × Prop. Student Aid				0.026***			
				(0.005)			
Distance (log) × Prop. Pub. Service					0.018**		
					(0.009)		
Distance (log) × Prop. Academic Services						0.001	
						(0.003)	
Distance (log) × Prop. Others							0.001
							(0.003)
r2	0.064	0.064	0.065	0.065	0.065	0.065	0.064
N	17130275	17135542	16210881	16214345	16205261	16216763	17130275

Standard errors clustered at foundation state level in parentheses. *** p<0.01 ** p<0.05 * p<0.1

Notes: Each observation correspond to a university-foundation transaction in the choice set of a foundation in a given cycle. Distance measures the absolute value of the difference between CFScore of the private foundation and that of the university. Standard errors clustered at foundation state level in parentheses. Contribution amounts in logs. All regressions include cycle fixed effect. *** p<0.01 ** p<0.05 * p<0.1.

Table 9: Donors Preferences: University Self-Reported Destination of Foundations Funds

	(1) Donation log ($)	(2) Donation log ($)	(3) Donation log ($)	(4) Donation log ($)	(5) Donation log ($)
Distance (log)	0.140***	0.115***	0.102***	-0.007**	-0.008**
	(0.031)	(0.021)	(0.020)	(0.003)	(0.004)
Distance (log) × Endowment (log $)	-0.008***				
	(0.002)				
Distance (log) × Found. Total (log $)		-0.009***			
		(0.001)			
Distance (log) × Found. Restricted (log $)			-0.008***		
			(0.001)		
Distance (log) × Prop. Foundations				-0.043***	
				(0.006)	
Distance (log) × Prop. Restricted					-0.011**
					(0.005)
r2	0.062	0.062	0.064	0.059	0.064
N	20168835	20216012	17104371	18316632	17129800

Notes: Each observation correspond to a university-foundation transaction in the choice set of a foundation in a given cycle. All interacted variables present the log-amounts per student. Standard errors clustered at foundation state level in parentheses. Contribution amounts in logs. All regressions include cycle fixed effect. *** $p<0.01$ ** $p<0.05$ * $p<0.1$.

8 Figures

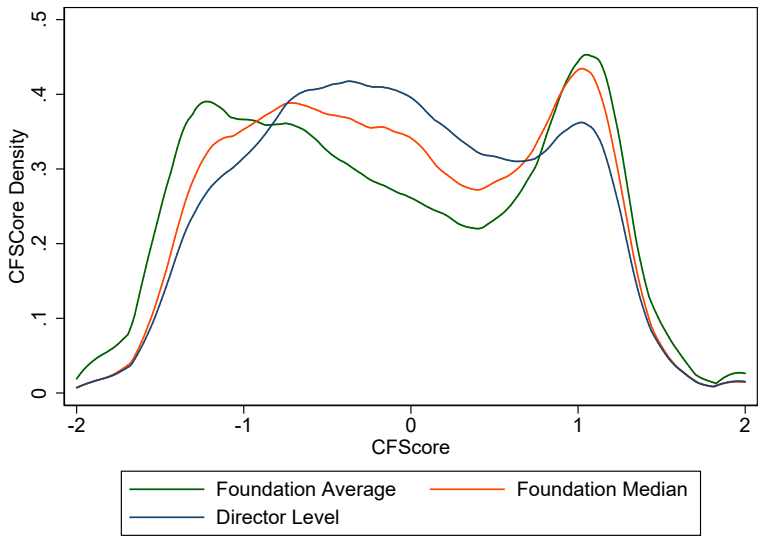
Figure 1: Data Coverage By Year

(a) IRS Data vs Transactions Dataset

(b) Matched Share

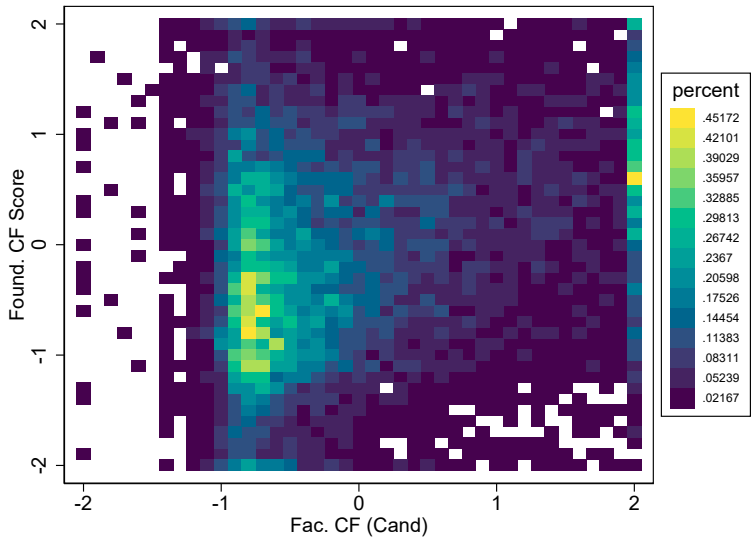
**Note:* IRS foundations shows the total number of grant-making foundations. Panel (b) includes exclusively transaction in the data.

Figure 2: Foundations Political Ideology Distribution



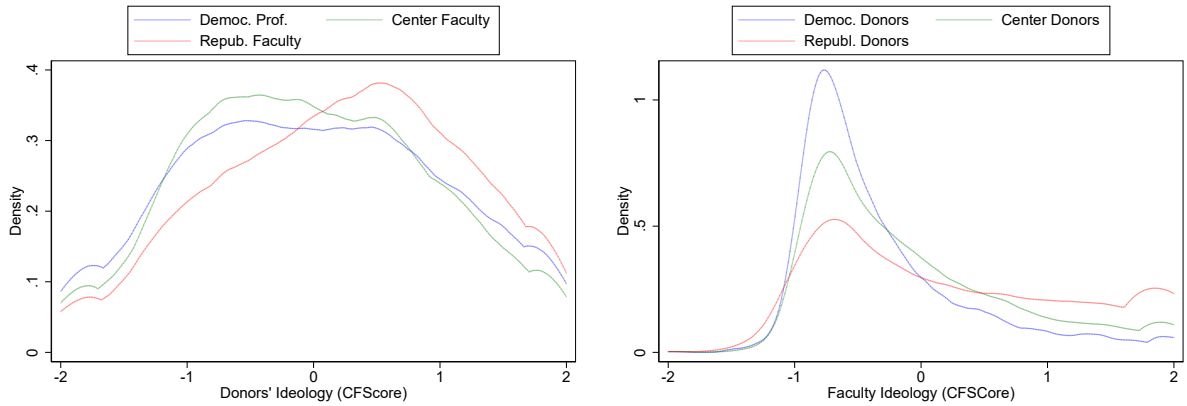
*Note: graph composed using foundations' board member in 2018. Values larger than axis limits are grouped into bordering values.

Figure 3: Donors vs Recipients Political Ideologies



*Note: figure represents the average CFScore of the foundations that donated to each university and the average CFScore of the faculty of that university. Sample includes 16,566 university-foundation observations.

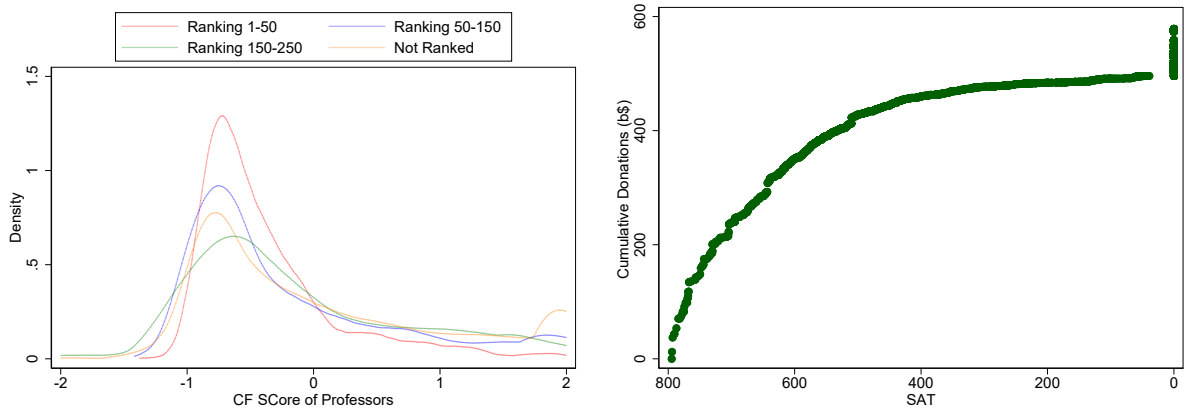
Figure 4: University-Donors Ideologies Distribution



(a) University-Grantee Names (b) Faculty Employers

*Note: figure represents the average CFScore of the foundations that donated to each university and the average CFScore of the faculty of that university. Sample includes 16,566 university-foundation observations. Democratic, center, and republican defined as belonging to the lower quartile, the two middle quartiles, or the upper quartile of the corresponding distribution.)

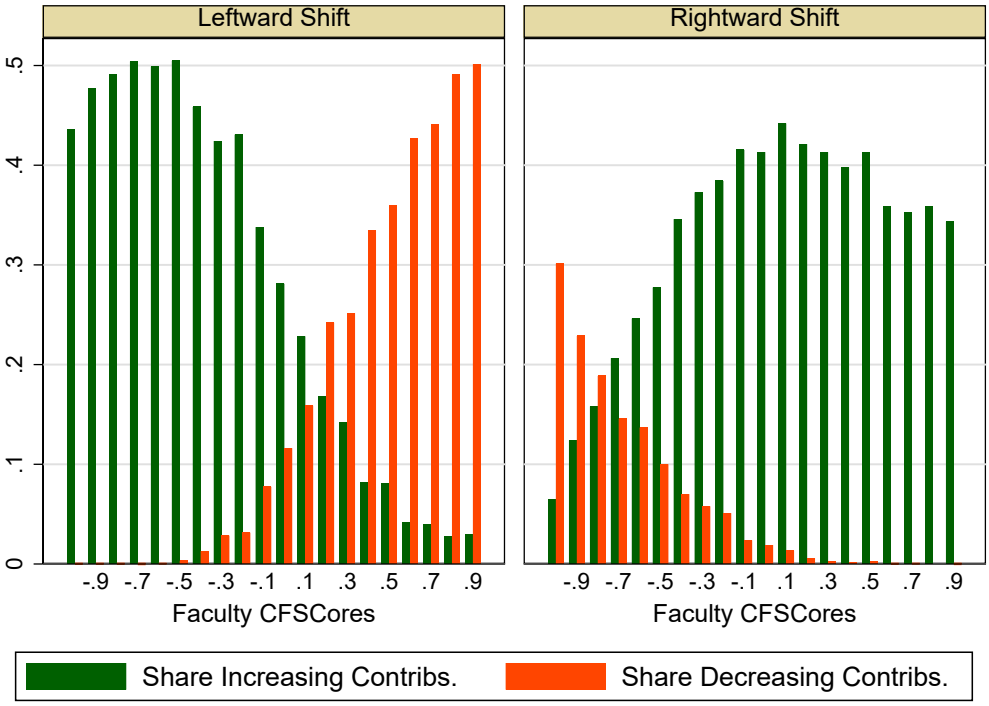
Figure 5: Faculty Views by USNews Ranking



(a) Donors Ideology by USNews Ranking (b) Cumulative Donations by SAT (Pooled Years)

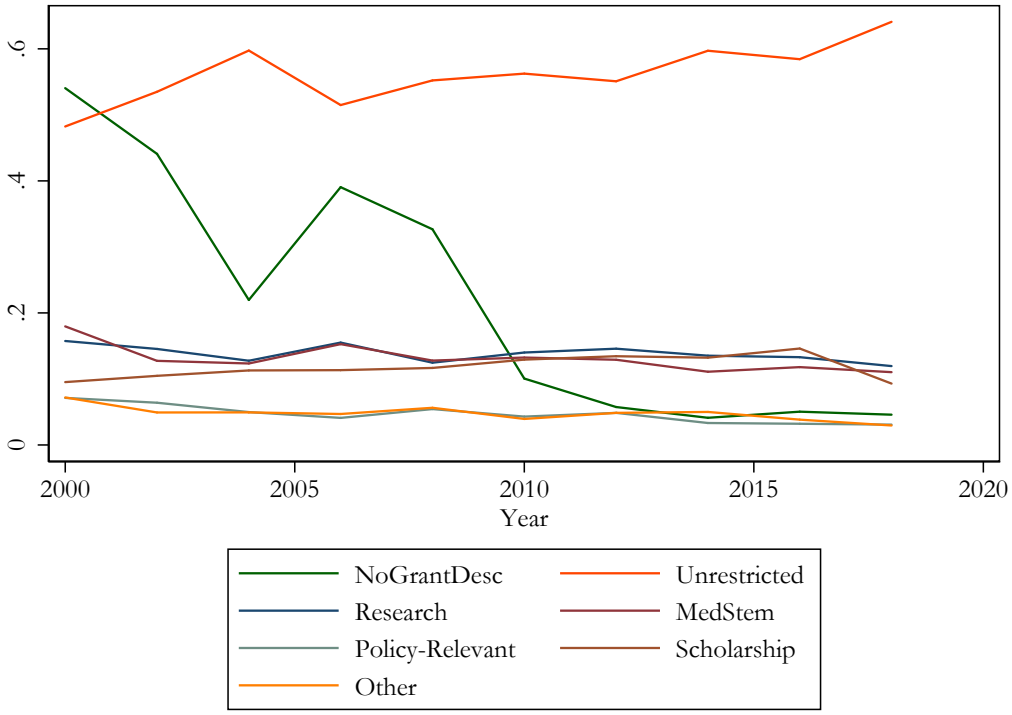
*Note: Panel (a) displays the distribution of donors' ideology by USNews ranking. Ranking positions are interpolated when missing on a given year. Panel (b) presents the cumulative total donations received by universities according to their 75^{th} percentile SAT scores.

Figure 6: Predicted Contributions' Response to University Ideology Change



Note: prediction based on degree 5 polynomial on distance allowing for quantile-dependent slopes by donors' ideology. Regression include state fixed effects, individual-year fixed effects, and university-year fixed effects. Standard errors clustered at the foundation state level.

Figure 7: Declared Use of Funds: Evolution



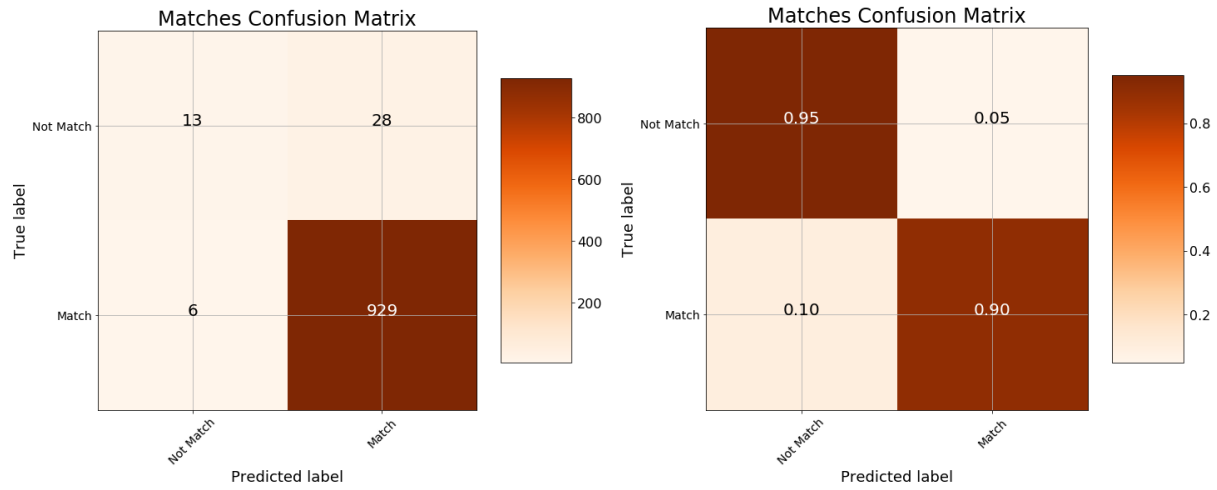
Note: figure report the proportion of funds that were linked to each of these areas based on the grant descriptions reported to the IRS by private foundations in their Form 990. Groups are not exclusive (i.e. total adds up to more than 1).

A Appendix

A.1 Matching Process

The data on faculty donations contains information about those who reported a given university as their employer. FEC respondents are required to declare the position they occupy at their current employment, but respondents are often unspecific or use abbreviations. As a results, false matches can appear. Individuals who reported to be students, teaching assistants, and research assistants were removed, but all other categories were maintained, such as administrative positions, to avoid confusion and arbitrary choices when comparing position titles from different schools. The overall distribution is hardly affected when removing categories that are less likely to represent faculty. Hence all cases are maintained to avoid noisy estimates of the school position when observing few data points for each single university.

Figure 8: Matching Process Statistics



(a) University-Grantee Names

(b) Faculty Employers

Table 10: Donors Preferences: Use of Funds - Top Schools

	(1) Contrib. Amount	(2) Contrib. Amount	(3) Contrib. Amount	(4) Contrib. Amount	(5) Contrib. Amount
Distance	-0.043***	-0.032***	-0.030***	-0.033***	-0.042***
	(0.011)	(0.010)	(0.009)	(0.010)	(0.011)
Distance × Top-School	-0.078***	-0.079***	-0.079***	-0.079***	-0.080***
	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)
Distance	0.000				
	(.)				
Distance × Scholarship	0.033*				
	(0.018)				
Distance		0.000			
		(.)			
Distance × Research		-0.076			
		(0.072)			
Distance			0.000		
			(.)		
Distance × Med-STEM			-0.108**		
			(0.044)		
Distance				0.000	
				(.)	
Distance × Policy-Relevant				-0.099	
				(0.073)	
Distance					0.000
					(.)
Distance × Unrestricted					0.009
					(0.020)
r2	0.276	0.276	0.276	0.276	0.276
N	180,194	180,194	180,194	180,194	180,194

Notes: Each observation correspond to a university-foundation transaction in the choice set of a foundation in a given cycle. Distance measures the absolute value of the difference between CFScore of the private foundation and that of the university. Standard errors clustered at foundation state level in parentheses. Contribution amounts in logs. All regressions include cycle fixed effect. *** $p<0.01$ ** $p<0.05$ * $p<0.1$.