The Political Polarization of U.S. Firms[☆]

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Abstract

Executive teams in U.S. firms are becoming increasingly politically polarized. We establish this new fact using political affiliations from voter registration records for top executives of S&P 1500 firms between 2008 and 2018. The rise in political homogeneity is explained by both an increasing share of Republican executives and increased sorting by partisan executives into firms with like-minded individuals. Further, we find that within a given firm-year, executives whose political views do not match those of the team's majority have a higher probability of leaving the firm. The increase in political homogeneity is taking place despite executive teams becoming more diverse on both gender and race dimensions.

1. Introduction

A growing literature documents a large increase in polarization across political parties in the U.S. (e.g., Iyengar, Sood, and Lelkes (2012); Mason (2013); Lott and Hassett (2014); Mason (2015); Gentzkow (2016); Boxell, Gentzkow, and Shapiro (2017)). Pew Research Center (2017) shows party identification is now a more significant predictor of Americans' fundamental political values than any other social or demographic divide. Moreover, whereas differences in social attitudes across individuals of different genders or races have remained relatively stable since the 1970s, the gap between Republicans and Democrats has increased substantially (Bertrand and Kamenica (2018)).

Another symptom of the rising political polarization is the increasing political homophily of social groups, especially families, as individuals prefer to form relationships with politically like-minded individuals (Iyengar, Konitzer, and Tedin (2018)). In contrast, the workplace has long been considered the social context best positioned to provide opportunities for regular interactions and conversations across partisan lines (Mutz and Mondak (2006); Hertel-Fernandez (2020)). For example, Mutz and Mondak (2006) show the workplace is much more likely to expose individuals to people of dissimilar perspectives than are other contexts, such as the family, the neighborhood, or voluntary associations. Yet, we have a limited understanding of the degree of political polarization in the workplace, especially among high-level decision-makers, and how it has changed over time.[1]

To offer new insights on polarization in the workplace, we focus on important decision-makers in the firm: executive teams. Our study is motivated by the emerging evidence that partisanship influences economic decisions not only by households, but also by economically sophisticated agents in high-stakes environments (Kempf and Tsoutsoura (2020); Dagostino, Gao, and Ma (2020); Gormley, Kaviani, and Maleki (2020)). Corporate executives are responsible for designing and executing the most important corporate decisions (Bertrand and Schoar (2003)). Moreover, corporate executives have substantial influence on shaping the firm's managerial ranks via promotion and hiring decisions. If increasingly homogeneous political views among corporate

[1]Notable exceptions include Colonnelli, Pinho Neto, and Teso (2020), who show firm owners in Brazil are more likely to hire employees who share their political affiliation (although they do not find an increasing trend), and Gift and Gift (2015), who explore how partisanship affects hiring decisions in a randomized experiment.

executives lead to biased promotions and hiring, inefficient firm-worker matching or a reduction in incentives for employees to invest in firm-specific human capital can arise.

Combining Execucomp data on top executives in U.S. S&P 1500 firms with voter registration records, we document a strong increase in the political polarization of executive teams between 2008 and 2018. Following Easterly and Levine (1997) and Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg (2003), we measure polarization as the probability that two randomly drawn executives are affiliated with the same political party.[2] Based on this measure, we find a 5.0 percentage-point increase in the political polarization of executive teams over our sample period. As a reference point, this increase is larger than the decrease in gender homogeneity that we observe over the same time period. The years with the highest annual increase in political polarization are 2010, 2012, and 2016, that is around presidential elections and the passage of the controversial Affordable Care Act ("Obamacare"). The increase in the political homogeneity of executive teams is even more remarkable in light of the decreasing homogeneity along the gender and race dimensions, which should, if anything, lead to greater diversity in political views.

What drives the increase in the political polarization of executive teams? One possibility is that the increase in polarization is a reflection of changes in the share of Republicans and Democrats in the overall population of executives. Alternatively, the increase in political polarization could result from an increased tendency of executives to sort into firms with like-minded individuals. Using Monte Carlo simulations to generate measures of randomly occurring polarization, we document that 80% of the increase in polarization is driven by an increased tendency of executives to sort into firms with individuals who share their political views.

We complement these results with a dyadic regression approach (see Colonnelli, Pinho Neto, and Teso (2020)). A unit of observation in this regression is a hypothetical executive-pair and the outcome variable is an indicator equal to one if the pair works in the same firm. An important advantage of the dyadic approach is that we can control for the influence of other executive characteristics (gender, ethnicity, and age) and of location characteristics (i.e., the state of the firm's headquarters) on executive matching. Our results show executives who share the same

[2]Throughout this paper, we use the terms political polarization and political homogeneity interchangeably. In both cases, we are referring to the likelihood that two randomly drawn executives from the same firm share the same political party.

political party are 36% more likely to work in the same firm. Moreover, we find the role of political views in determining executive sorting is strengthening over time, with the largest point estimate in the last year of our sample period.

Further supporting the role of political views in executive-team formation, we document evidence consistent with political views affecting executives' departure decisions. Specifically, within each firm-year, we compare executives whose political views match those of the team's majority and executives whose political views do not match the team's majority. We find that executives who are politically aligned with the rest of the team have a 2.5-percentage-points lower probability of leaving the firm relative to other executives. This effect corresponds to an 18.9% decrease in the likelihood of departure relative to the unconditional turnover probability of 13.2%. This result holds after the inclusion of firm $\times$ year fixed effects; that is, we can control for any drivers of executives' departure decisions related to firm fundamentals. We find again a strong increase in the effect over time: whereas, during the period 2008–2014, the effect is relatively small and statistically insignificant, it becomes highly economically and statistically significant during the later part of our sample period (2015–2017).

What factors contribute to the increased sorting of executives into firms with like-minded individuals? To address this question, we consider heterogeneity in the legal environment across states as well as heterogeneity in firms' stakeholders, including shareholders, customers, and executives.

While there is no U.S. federal law prohibiting discrimination based on political ideology by private employers, some states have adopted laws prohibiting such discrimination.[3] We conjecture that, if a firm is headquartered in states with a law that prohibits workplace discrimination based on political ideology, the trend in political polarization of executive teams should be weaker. Consistent with this hypothesis, we find that these firms do not exhibit any trend in the political polarization of their executive teams. Instead, we find that the trend is driven by states that have not adopted such laws. These results indicate that state laws are effective in reducing sorting of executives based on political views.

Next, we consider two types of stakeholders: shareholders and customers. We find that

[3]The states in our sample that currently have laws in place prohibiting political discrimination in the workplace are California, Colorado, Illinois, Massachusetts, New York, and Ohio.

the increased sorting of executives is less pronounced in firms with higher level of institutional ownership and firms in customer-oriented industries (GICS sectors "Consumer Discretionary" and "Consumer Staples"). The result on the role of institutional ownership in mitigating homogeneity of political views in executive teams is consistent with the fact that institutional investors often emphasize the role of gender and race diversity in workplace. The fact that executives in consumer industries do not exhibit a rising tendency to sort on political affiliation suggests it is unlikely that the rising homogeneity in executives' political views is driven by a rising polarization in firms' customer base.

Finally, we consider the role of the most important executive office—the CEO. We split our sample by CEO tenure, hypothesizing that a CEO with a longer tenure in the firm has had more opportunities to influence the ideological composition of the executive team. Consistent with this conjecture, we find a larger increase in sorting based on political views for firms with longer CEO tenure. The result suggests that the CEO's political preferences could indeed lead to more like-minded people joining the executive team.

Our paper contributes to the growing literature on the connection between political partisanship and economic decisions. Most existing studies have focused on households and study the effect of partisanship on household consumption (Gerber and Huber (2009); McGrath (2017); Gillitzer and Prasad (2018); Mian, Sufi, and Khoshkhou (2021); Makridis (2019)), real estate decisions (McCartney and Zhang (2019)), and portfolio allocation decisions (Addoum and Kumar (2016); Bonaparte, Kumar, and Page (2017); Meeuwis, Parker, Schoar, and Simester (2018), Giglio, Maggiori, Stroebel, and Utkus (2021)). More recently, studies have documented that partisanship also affects the economic decisions of more sophisticated individuals in high-stakes environments, such as credit analysts (Kempf and Tsoutsoura (2020)), loan officers (Dagostino, Gao, and Ma (2020)), and judges (Gormley, Kaviani, and Maleki (2020)). Recent literature also focuses on real effects of partisanship on firms. Duchin, Farroukh, Harford, and Patel (2019) show the political distance between firms affects firms' M&A decisions, and Rice (2020) investigates the effect of political partisanship of executives on firms' investment decisions. Our paper contributes to this literature by providing novel evidence on the increase in political polarization of executive teams.

We also contribute to the literature that studies the effects of diversity among firms' ex-

ecutive teams or boards of directors. Prior literature has examined the effect of demographic similarities (e.g., Westphal and Zajac (1995)) and gender diversity (e.g., Adams and Ferreira (2009); Ahern and Dittmar (2012); Nguyen, Locke, and Reddy (2015)). A stream of studies focuses on the effect of diversity of independent directors' backgrounds or expertise on corporate governance and firm performance (e.g., Masulis, Wang, and Xie (2012); Fich (2005)). Bernile, Bhagwat, and Yonker (2018) create an index of board diversity that combines director expertise, demographic characteristics, and education and find greater board diversity leads to lower volatility and better firm performance. A key difference between these papers and ours is that we focus on political diversity, which features much less prominently in the public debate about corporate boards. Yet, political affiliation seems to increasingly predict differences in social attitudes across individuals, as Bertrand and Kamenica (2018) show. Lee, Lee, and Nagarajan (2014) also focus on political ideology, and use political contributions data to measure political alignment between CEOs and board members. They find alignment has an adverse effect on board independence, leading to managerial entrenchment and lower firm value. We add to this body of work by documenting increasing political polarization of U.S. executive teams.

Finally, we add to the literature that investigates political homophily of social groups. On one hand, families have become more politically homogeneous (Iyengar, Konitzer, and Tedin (2018)). On the other hand, when it comes to how partisanship affects neighborhood selection, the evidence is mixed. In surveys, participants report that political homophily is an important consideration for neighborhood selection (Gimpel and Hui (2015); Gimpel and Hui (2018)), but actual location choices reveal little evidence that people are increasingly living in politically distinct communities (Mummolo and Nall (2017)).

2. Data Sources and Sample Description

2.1. Execucomp

We obtain information on the firm's top-earning executives from the Execucomp database, maintained by Standard & Poor's. Execucomp covers all companies included in the S&P 1500 index. It uses compensation data from firms' annual proxy statements (form DEF 14A), in which firms are required to report compensation data for the five most highly compensated executives. In addition to compensation information, Execucomp contains the full names of the executives,

their age, and their role in the firm. The coverage starts in 1992, but we restrict the sample to years 2008 to 2018 because this period has the best coverage in the voter registration data used to infer party affiliation (see below). After restricting the sample to the above time period, the Execucomp database spans 26,003 executives in 2,476 firms.

We also use executives' first and last names to obtain additional demographic characteristics. For example, we infer executives' ethnicity from their first and last names, using the API name-prism.com (see Ye, Han, Hu, Coskun, Liu, Qin, and Skiena (2017) for details). Moreover, we infer gender from executives' first names, using the publicly available API genderize.io combined with manual online searches.[4] We have verified the high accuracy of the two APIs using voter registration data from North Carolina, which contain information on voters' ethnicity and gender. Among the executives that we were able to match to voter records from North Carolina, the accuracy of the API-predicted gender is 99% and the accuracy of the API-predicted ethnicity (white versus non-white) is 97%.

2.2. Political Affiliation

Our political-affiliation measure comes from voter registration records from California (Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, Sonoma), Colorado, Illinois, Massachusetts (Boston, Cambridge), North Carolina, New Jersey, New York (New York City), Ohio, and Texas. We restrict our sample to these locations because the other states either do not share voter registration records or do not track voters' party affiliations over time.[5] The voter registration records contain identifying information, such as voter names, date of birth, and mailing address, as well as the voter's party affiliation at the time of a given election and an indicator for the election(s) in which the individual has voted. The elections covered are general, primary, and municipal elections going back at least until 2008. In the Internet Appendix, which is available on the authors' websites, we describe in more detail the information available in the voter registration records of each location.

For the purpose of our study, the voter registration data have important advantages over

[4]The API uses a large dataset of first names and known genders gathered from user profiles across major social networks in order to predict gender. See http://api.genderize.io/.

[5]We use county-level data for California and city-level data for New York City, Boston, and Cambridge, because the statewide data for California, New York, and Massachusetts do not contain historical party affiliations.

the more commonly used data on financial contributions to political parties, candidates, and committees, found on the Federal Election Committee (FEC) website.[6] First, voter registrations are more likely to reflect individuals' political views than are their political contributions, which could be made for other reasons. In fact, an ongoing debate among political scientists concerns the extent to which political contributions reflect consumption or investment motives, that is, the extent to which individuals donate in order to derive a consumption benefit or to influence political outcomes (e.g., Gordon, Hafer, and Landa (2007)). Political donations may also be influenced by social pressures. For example, Babenko, Fedaseyeu, and Zhang (2019) provide evidence that CEOs influence the political contributions of other employees. Second, a significant number of contributions cannot be linked to any party, because the recipient political committee is not affiliated with a political party or party candidate. As we show below (and as Cohen, Hazan, Tallarita, and Weiss (2019) have shown), the number of contributions that cannot be linked to a political party has increased substantially in recent years. Although this trend could, in principle, reflect more neutral political preferences by executives, it may also reflect greater obscurity of political committees. Third, a non-trivial share of executives (20% in our sample) contributes to both parties, making inferring a clear party preference difficult. Finally, party registration has been shown to be a very good predictor of self-reported party identification. Igielnik, Keeter, Kennedy, and Spahn (2018) match commercial voter files, which are based on data from voter registration records, with a large-scale survey on political attitudes and voter behavior and show that, for more than two-thirds of the panelists, the party affiliation in the commercial voter file correctly infers the self-reported party identification. The accuracy is even higher for states with party registration, such as New York.

2.3. Additional Data Sources

We collect financial information and Global Industry Classification Standard (GICS) codes for the companies in our sample from Compustat and stock return information from the CRSP files. Throughout the paper, we define industries based on GICS sectors. To obtain the address of the firm's historical headquarters, we use the information found in the header section of the

[6] See https://www.fec.gov/.

firm's 10-K/Q filings.[7] When location data from historical filings are unavailable, we use address information from Compustat.

To track the location of executives who move from one state to another, we use the Infutor dataset. Infutor provides address histories for more than 160 million U.S. residents, covering up to 10 addresses or 30 years of address history for each individual. Their data are aggregated from various public sources such as phone connects and disconnects, real estate deed and property data, mover-reported address changes, and professional registries. In addition to address histories, Infutor also contains individuals' first and last names, year of birth, and gender. In the Internet Appendix, we describe in detail how we connect the executives in our sample to address histories from Infutor.

2.4. Sample Construction

Of the 26,003 executives from Execucomp, 14,688 (=56%) are located in one of the nine states for which we have historical voter registration data. In terms of their aggregate market capitalization, firms in these nine states represent 62% of all Execucomp firms.

Because we require information on political-party affiliation, we further restrict the sample to executives who can be matched to a unique voter registration record. In a first step, we merge executives to voters using first name, middle initial, and last name, keeping only exact matches. For executives who are matched to multiple voter records, we sequentially apply two additional filters in order to identify a unique match. The first filter removes any matches with an age gap larger than three years. The second filter removes all matches located outside a 50-mile radius around the firm's headquarters. In a second step, we take all executives who could not be matched to a unique voter in the first step and merge them to voter records using the same procedure as in the first step above, except we use only the first name and last name of the executive. Our merging procedure is described in more detail in the Internet Appendix. We are able to match 45% of executives to a unique voter. This match rate is comparable to previous studies using U.S. voter registration records (Kempf and Tsoutsoura (2020)). After removing unaffiliated executives and executives who are affiliated with parties other than the Democratic and Republican party,

[7]We thank Professor Bill McDonald for making these data available on the University of Notre Dame's Software Repository for Accounting and Finance at https://sraf.nd.edu/data/augmented-10-x-header-data/.

our final sample includes 4,041 executives working in 1,218 firms.

For our analysis of time trends in political polarization, we further restrict the sample to firms with at least two matched executives, reducing the sample to 916 unique firms. Figure 1 plots summary statistics for this sample. The number of unique firms is above 400 and the number of unique executives is above 1,000 in all calendar years. We match, on average, between 44% and 54% of the executives in these firms, which corresponds to approximately 2.6 to 2.8 executives for the average firm-year. In the Internet Appendix, we show the geographical distribution of firms and executives across the nine states. The majority of firms are located in California, followed by Texas, Illinois, and Ohio.

Even though our analysis does not require a random sample, we would still like to understand the potential differences between our sample and the overall population of executives and firms in the Execucomp database. First, we investigate whether executives whom we are able to match to a voter record run different types of companies. The results, reported in the Internet Appendix, show executives for whom we are able to obtain party affiliation run firms that are somewhat larger, have higher cash holdings and a higher Tobin's Q than firms run by executives without a matching voter record. We do not find significant differences along several other observable firm characteristics, including leverage, cash flow, and investment. Second, in terms of selection based on observable executive characteristics, we do not expect executives who are registered voters to be representative of the overall population of U.S. executives. A comparison of matched and non-matched executives, also reported in the Internet Appendix, reveals that CEOs, white executives, and executives with longer tenure are more likely to be matched to a voter record. Our results below should therefore be interpreted as measuring the extent of political polarization among executives who are registered voters, which is a reasonable sample to use for measuring polarization in the workplace.

2.5. Summary Statistics

Table 1 reports summary statistics for our sample. Panel A reports statistics for the firm-level variables, where the unit of observation is the firm-year. The average share of Democratic and Republican executives is 44% and 56%, respectively, with a standard deviation of 37%. The average political homogeneity, which we measure as the probability that two randomly drawn ex-

ecutives belong to the same party and discuss in more detail below, is equal to 78.6%. We observe an even higher degree of homogeneity for gender and ethnicity: the average gender homogeneity, measured as the probability of two randomly drawn executives having the same gender, is 93.2%, and the average ethnic homogeneity, measured as the probability of two randomly drawn executives having the same ethnicity (white versus non-white), is 95.8%.

[Insert Table 1 here]

Panel B reports statistics for the executive-departures sample. The unit of observation is the executive-year. In our sample, the average likelihood of an executive's departure is 13.2%. The average tenure in the current position is five years, and almost 6.5% of executives are older than 65 years. We find 95.2% of executives are white and 9.5% are women.

3. Aggregate Trends in the Political Affiliations of U.S. Executives

3.1. Trends in Political Affiliation

Figure 2 reports the shares of executives who are registered as Democrats and Republicans over time. The majority of executives are affiliated with the Republican party. Moreover, the share of Republican executives increases from 58% in 2008 to 66% in 2018. In the Internet Appendix, we plot the time trend in the political affiliation of executives after adding unaffiliated executives. We continue to find an increasing share of Republicans, as well as a decrease in the share of unaffiliated executives. The latter is partly mechanical, because in some states, we infer party affiliation from primary elections, and the cumulative likelihood of having voted in at least one primary election increases over time for each executive. To ensure our results are not driven by changes in the fraction of unaffiliated voters, we restrict our main analysis to Democratic and Republican executives and exclude unaffiliated voters.

The dominance of the Republican party among U.S. corporate executives is consistent with Cohen, Hazan, Tallarita, and Weiss (2019), who find the majority of CEOs in S&P 1500 companies donate primarily to the Republican party. Bonica (2016a) finds similar evidence. What differs in the contributions data, however, is the time trend: whereas we observe an increase in the share of Republican executives between 2008 and 2018 in the voter data, the share of executives who contribute to the Republican party either remains constant (when unaffiliated contributions

are excluded) or even decreases over time (when unaffiliated contributions are included). We infer party affiliation from political contributions using the cumulative donation amounts of the executive and report these graphs in the Internet Appendix.

In Figure 3, we plot the distribution of party affiliation inferred from political contributions separately for executives who are registered Democrats and registered Republicans. An executive is classified as a Democrat (Republican) if she has made the majority of her cumulative contributions to the Democratic (Republican) party. Whereas executives who are registered Democrats exhibit an increasing tendency to donate to their political party, executives who are registered Republicans do not. This finding suggests a trend toward more "open" Democrats among U.S. executives in recent years. The pattern is also consistent with recent evidence reported by Bonaparte (2020), who finds contributions to the Democratic party by corporate executives have increased since the 1990s. In Figure 4, we repeat Figure 3 after adding executives who are classified as unaffiliated based on their historical contributions. We observe that Republican executives increasingly donate to committees that cannot be linked to a political party starting around 2016. This finding suggests a possible trend toward not only more open Democrats, but also toward more "hidden" Republicans in recent years.

3.2. Trends in Political Polarization of Executive Teams

Next, we turn to time trends in the political polarization of executive teams. Following Easterly and Levine (1997) and Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg (2003), we measure political homogeneity as the probability that two randomly drawn executives from the same firm have the same party affiliation (i.e., are either both Republicans or both Democrats):

$$Polar_{ft} = Share\,Dem_{ft}^2 + Share\,Rep_{ft}^2, \tag{1}$$

where $Share\,Dem_{ft}$ and $Share\,Rep_{ft}$ refer to the share of registered Democrats and Republicans among all executives in firm f in year t, respectively. As a benchmark, if all firms had exactly a 50-50 share of Democratic and Republican executives, the average homogeneity measure would be 0.5 ($= 0.5^2 \times 2$). In our robustness tests, we show that our main results are robust to using four alternative measures of homogeneity / diversity: the absolute difference in the share of Democratic and Republican executives (i.e., $|Share\,Dem_{ft} - Share\,Rep_{ft}|$); an indicator equal to

one if all matched executives in the firm share the same political party; the Simpson dominance index, and the Hoover index. As explained above, we restrict the sample to Republican and Democratic executives only; that is, we exclude unaffiliated executives and executives affiliated with other parties.

In Figure 5, we plot the average political polarization over time. We observe a sizable increase in the political homogeneity of executive teams. Between 2008 and 2018, the increase is equal to approximately 5.0 percentage points.[8] The year-on-year increase in the average polarization is highest in 2010, 2012, and 2016. This finding suggests recent presidential elections as well as controversial reforms (e.g., Obamacare in 2010) may have contributed to the increase in political homogeneity over the past decade.

[Insert Figure 5 here]

In Table 2, we show the positive time trend in Figure 5 is statistically significant. We regress the polarization measure for each firm-year on the calendar year as well as on other controls and fixed effects. Standard errors are clustered at the firm level. Given that our sample period spans 10 years, the coefficient of 0.5099 in column (1) indicates polarization increases by 5.10 (=0.5099 $\times$ 10) percentage points between 2008 and 2018. Relative to the average polarization of 78.6%, this increase is economically sizable. Our estimate of the slope coefficient remains stable when we control for the number of matched executives, other dimensions of diversity of the executive team (gender, ethnicity, and age), or firm fixed effects. Our preferred specification in column (5) indicates an increase in polarization of 0.562 percentage points annually.

[Insert Table 2 here]

We perform a series of additional tests to verify the robustness of the observed increase in political polarization. In Table 3, Panel A, we obtain an even larger positive slope coefficient if we include unaffiliated executives. This finding is expected, because we have already documented that the share of unaffiliated executives decreases over time, which increases polarization. In Panel B, we show the increase in political polarization also holds if we add party affiliation from states

[8] In the Internet Appendix, we show the positive trend in political homogeneity of executive teams is robust to including unaffiliated and other executives in the analysis.

that only provide the most recent party affiliation for each voter and do not track party affiliations over time. This sample extension adds firms located in Arkansas, Connecticut, Florida, Kansas, Nevada, Oregon, Oklahoma, Rhode Island, and West Virginia, as well as parts of California and New York not covered by our county and city-level data. These states do not provide historical party affiliations for each voter, but they do provide party affiliations as of the time we received the data (in 2017 and 2018). Expanding the set of states increases the number of unique firms in our sample from 916 to 1,357, and we continue to find a sizable increase in polarization. In Panel C, we assess how much of the increase in polarization is coming from within-person changes in party affiliation. We repeat the analysis in Table 2 after removing any time variation in executives' political affiliation by carrying forward the very first party affiliation we observe for each executive. The resulting estimates imply within-person party changes can explain 33.2% (=1-0.375/0.562) of the increase in polarization. In other words, political assimilation within the team does play a role, but the majority of the effect is driven by changes in the composition of executive teams. We explore this feature of the data in more detail in Section 3.5.

In Table 4, we obtain very similar results if we use two alternative measures of polarization. The first measure is an indicator equal to one if all matched executives in the firm have the same political party (see Panel A). The second measure is the absolute difference in the share of Democratic and Republican executives (see Panel B). Moreover, in the Internet Appendix we report results for the Simpson dominance index and the Hoover index, which also produce consistent results.

We further assess the robustness of our result reported in column (5) of Table 2 by sequentially removing each GICS sector as well as each of the nine states. The results, reported in the Internet Appendix, show our main result is robust to dropping any single GICS sector and any state. The estimate of our slope coefficient becomes smaller if we drop Ohio or Texas, indicating the increase in polarization is particularly pronounced in those two states. It becomes larger if we drop firms in California, which experience an increase in the share of Democratic executives and a decrease in polarization on average.

Next, we investigate the extent to which the increase in political polarization is driven by the increase in the share of Republicans in the overall population of executives (as shown in Figure 2) or by an increased tendency of executives to sort into firms with like-minded individuals. To

differentiate between these two possibilities, we perform Monte Carlo simulations in which we randomly assign each executive in our sample a political party affiliation, using the share of Democratic and Republican executives in the overall population of executives in a given year.[9] For each firm-year, we then simulate 1,000 hypothetical polarization measures assuming random sorting of executives into firms. The results from the simulation are shown in Figure 6.

[Insert Figure 6 here]

The blue bars show the average political polarization across all firms for each of the 1,000 simulated datasets, and the red line shows the actual average polarization in our data for the years 2008, 2013, and 2018. We observe that the blue distribution shifts to the right between 2008 and 2013. This shift reflects the increase in the share of Republican executives. Importantly, across all panels, we can reject the hypothesis that executives sort into firms randomly at the 1% level, because the actual polarization in our dataset exceeds the 99th percentile of polarization in the simulated sample in all years. When we compare the results across panels, we observe an increasing tendency of executives to sort into firms with like-minded individuals, as can be seen from the fact that the red line moves farther and farther away from the blue distribution. Figure 7, Panel A, provides an alternative visualization of this trend. It plots both the average political homogeneity in the data (solid line) as well as the average simulated homogeneity (dashed line) for each year. Over time, the distance between the two lines grows, consistent with the red line moving farther away from the mean of the blue distribution in Figure 6.

[Insert Figure 7 here]

Further illustrating the trend toward more politically polarized teams, in the Internet Appendix, we document an increased prevalence of both firms whose executive composition is 100% Republican, as well as firms whose executive composition is 0% Republican relative to the simulated distribution. Similarly, we also observe an increased prevalence of all-Democratic and zero-Democratic firms relative to the simulations.

We next assess whether the increase in executives' tendency to sort into firms with individuals who share their ideology is statistically significant. Specifically, we test whether the

[9]The approach of comparing actual segregation to segregation generated by randomness has also been used, for example, by Hellerstein and Neumark (2008) and Boisso, Hayes, Hirschberg, and Silber (1994).

distance between the solid line and the dashed line in Figure 7, Panel A, increases significantly over time. For each firm-year in our sample, we compute the difference between the firm's actual polarization and the average polarization across the 1,000 simulations, and then regress this difference on calendar-year dummies. Figure 7, Panel B, plots the coefficients and corresponding 95% confidence intervals for each of the calendar-year dummies, with the reference year being 2008.

[Insert Figure 7 here]

We find the tendency of executives to sort into firms with ideologically like-minded individuals is approximately 4.0 percentage points higher in 2018 than it was in 2008. Hence, the increased sorting of executives into firms with like-minded individuals can explain approximately 80% (=4.0/5.0), and thus a substantial share of the observed increase in political polarization between 2008 and 2018.

In the Internet Appendix, we repeat Figure 6 after modifying the simulation to use the share of Republican and Democratic executives in the firm's industry or state, respectively, rather than the shares in the overall population of executives. Using industry- or state-specific distributions of political affiliations in the simulation substantially reduces the observed increase in sorting by executives. Hence, a large part of the effect is driven by executives increasingly sorting into industries and, in particular, states with individuals who share their ideology.

3.3. Homogeneity in Other Executive Characteristics

The increase in political homogeneity stands in stark contrast to trends in homogeneity along other executive characteristics. We construct the same measure – the probability that two randomly drawn executives are from the same group – using alternative group definitions based on gender and ethnicity. We then repeat the analysis from Table 2, Panel A, using homogeneity in gender and ethnicity. Although we see a high *level* of homogeneity in gender and ethnicity, the sign of the trend is negative, as can be seen from the significant negative coefficient on calendar year. Thus, whereas executive teams become less homogeneous in gender and race, we observe an increasing homogeneity of political views. Because female and minority executives are more likely to be Democrats, as we show in the Internet Appendix, controlling for diversity along the gender

and race dimension tends to further increase our estimate of the increase in political homogeneity in Table 2, Panel A.

Finally, we also repeat the simulation exercise for homogeneity along the gender and race dimension. The results are reported in Figure 8. We find no evidence of increased sorting of male and female executives in Panel A. For ethnicity, we do find some evidence of increased sorting between 2008 and 2014, but it is economically small and shrinks again after 2014.

[Insert Figure 8 here]

3.4. Dyadic Regression Approach

In this section, we assess whether the results that executives sort into teams based based on political views are robust to using a dyadic regression approach (e.g., Colonnelli, Pinho Neto, and Teso (2020)). An important feature of the dyadic approach is that it allows us to control for several executive characteristics that could simultaneously drive the strategic sorting into executive teams. To implement this approach, we first build a sample of all hypothetical pairs of executives in each calendar year. We when estimate the following regression:

$$y_{ikt} = \alpha_t + \beta^{SP} SParty_{ikt} + \beta^{SG} SGender_{ik} + \beta^{SE} SEthnicity_{ik} + \beta^{SA} SAge_{ikt} + \beta^{SS} SState_{ikt} + \epsilon_{ikt}, \tag{2}$$

where y_{ikt} is an indicator taking value one if executives i and k work in the same firm in year t, and zero otherwise. $SParty_{ikt}$ is an indicator taking value one if executives i and k are registered with the same political party, $SGender_{ik}$ is an indicator taking value one if executives i and k have the same gender, $SEthnicity_{ik}$ is an indicator taking value one if executives i and k have same ethnicity, $SAge_{ik}$ is an indicator taking value one if executives i and k belong to the same 5-year age group, and $SState_{ikt}$ is an indicator taking value one if executives i and k are working for firms located in the same state. The sample is restricted to registered Republicans and Democrats only. We cluster standard errors at the executive pair level.

The results are reported in Table 5. The reported coefficients are multiplied by 100 to ease the interpretation of the economic magnitudes. Columns (1) and (2) show that, regardless of whether we control for year fixed effects or not, the likelihood that two executives work in the same firm increases by about 4.8 basis points when they belong to the same political party.

This is a sizable effect given that the unconditional likelihood of working for the same firm is 12.83 basis points. Columns (3) and (4) further show that, when we control for other executive characteristics (gender, ethnicity, and age) as well as for the state of the firm's headquarters, party affiliation continues to play a significant role in explaining the sorting of executives into teams. The coefficient of $SParty$ remains positive and statistically significant at the 1% level.

[Insert Table 5 here]

To assess whether the role of political affiliation in explaining sorting into executive teams has changed over time, we estimate equation (2) separately for each year in our sample. Figure 9 plots the estimated coefficient β^{SP} for each year. Consistent with previous sections, both panels reveal a rising political segregation in executive teams over time. Untabulated results confirm that the positive trend is statistically significant.

[Insert Figure 9 here]

3.5. Executive Departures

Our results so far indicate that, over time, executive teams become more politically polarized, largely due to an increased tendency of executives to sorting into firms by their political views. To further support the role of political views in executive-team formation, we next investigate whether alignment of political views can explain executives' departure decisions. Prior literature has shown an organization's policies affect new members joining and dissatisfied members leaving (e.g., Gieczewski (2021)). Thus, the political alignment of an executive team could drive departure decisions of corporate executives.

To investigate this channel, we test whether executives who have different political views than those of the majority of the team are more likely to depart from the firm. We estimate the following regression:

$$Executive\,Departure_{ift} \quad = \quad \alpha_{ft} + \alpha_p + \beta Match\,majority_{ift} + \delta' X_{ift} + \varepsilon_{ift},$$

where f, i, and t index firms, individuals, and years, respectively. p denotes the executive's political affiliation (Democrat, Republican, or unaffiliated). $Executive\,Departure$ takes the value

one in the year the executive leaves the firm, and zero otherwise. $Match\,majority$ is a dummy variable that takes the value one if the political affiliation of the executive matches the political affiliation of the majority of the team members, and zero otherwise. If the team has no clear Democratic or Republican majority, $Match\,majority$ is set equal to zero. Vector X_{ift} captures time-invariant and time-varying individual-level control variables. α_{ft} are firm $\times$ year fixed effects and absorb both time-invariant and time-varying firm characteristics, implying we do not need to include any firm-level control variables in this regression.

Our coefficient of interest is β, which captures the difference in the likelihood of departure between executives who have the same political affiliation as the team majority and those who do not. Due to the inclusion of executive-party-affiliation fixed effects (α_p) in all regressions, the coefficient will capture the effect of belonging to the same party as the majority, rather than differences in the average turnover probability between Republican, Democratic, or unaffiliated executives.[10]

Table 6 presents the results. We observe that executives whose political affiliation matches the majority's have a lower probability of leaving the firm than the other executives. The coefficient in column (1), where we include year, firm, and political affiliation fixed effects as well as individual-level controls, shows a 3.5-percentage-point-lower probability of leaving the firm for executives who match the political affiliation of the majority.

[Insert Table 6 here]

In the strictest specification, reported in column (2), we absorb any time-varying shocks at the firm level by exploiting variation within the same firm and year. We compare, within firm-year, executives whose political views match those of the team's majority and executives whose views are not aligned with the majority. In that specification, we find that when an executive matches the political affiliation of the majority, she has a 2.5-percentage-point-lower probability of leaving the firm. This probability is an 18.9% decrease relative to the unconditional turnover probability of 13.2% over our sample period. The Internet Appendix shows these results are

[10]Due to the inclusion of party-affiliation fixed effects in the regression, the coefficient on $Match\,majority$ will be identified only based on Republican and Democratic analysts, because unaffiliated analysts never change from matching the majority to not matching the majority. Hence, whether we code them as matching the majority or not does not affect our estimate of β.

robust and the magnitudes become even larger when we repeat the analysis on the subsample of Democratic and Republican executives only.

In columns (3) to (6), we examine how the effect varies across different time periods. In columns (3) and (4), we see the coefficient on $Match\,majority_{ift}$ is statistically insignificant and much smaller in terms of economic magnitude during the years 2008–2014. During the period 2015–2017 (columns (5) and (6)), on the other hand, the coefficient estimate is substantially larger than our baseline estimates in columns (1) and (2). This finding is consistent with political polarization becoming more important during recent years (e.g., Boxell, Gentzkow, and Shapiro (2020)).

4. Potential Mechanisms

This section explores potential drivers behind the increased sorting of executives into firms with like-minded individuals, including the legal environment, shareholder preferences, consumer preferences, and the role of CEOs.

4.1. Legal Environment

We begin by considering state laws that prohibit workplace discrimination based on political ideology. U.S. federal law does not prohibit private employers from discriminating against employees on the basis of political beliefs. However, some states protect employees from political discrimination in the workplace. While the scope of these state laws varies across states, in the analysis below we focus on laws protecting employees' rights of participating in political activities and/or expressing political opinions. We ignore state laws that only protect employees within 90 days before an election. We then construct an indicator equal to one if an anti-discrimination law was in effect in the state of the firm's headquarters in a given calendar year. The states from our sample that currently have such laws in place are California, Colorado, Illinois, Massachusetts, New York, and Ohio. In order to evaluate the role of the legal environment, we test whether the trend in political polarization is stronger for firms headquartered in states without a law that prohibits workplace discrimination based on political ideology. Specifically, for each subsample, we regress the difference between the firm's actual political homogeneity and the average simulated political homogeneity of the firm's executive team (measured in percentage points) on calendar year. The unit of observation is the firm-year.

Panel A in Table 7 reports the results. We find that the positive trend in political polarization of executive teams is driven by firms headquartered in states without a law in place that prohibits workplace discrimination based on political ideology (see columns (1) and (2)). In fact, if a firm is headquartered in a state with such a law in place, there is no increase in the polarization of executive teams. The difference in the coefficients across the two subsamples is statistically significant at the 1% level. This difference gets smaller but continues to be sizable when we rely on within-firm variation in political polarization by including firm fixed effects (columns (3) and (4)). However, the difference in coefficients is no longer statistically significant with firm fixed effects. Overall, these results indicate that state laws could indeed be effective at reducing sorting of executives based on political views.

[Insert Table 7 here]

4.2. Shareholder Preferences

We next consider the possibility that the increased sorting based on political views reflects an increasing preference by shareholders to have politically homogeneous teams. To address this possibility, we ask whether the trend in sorting based on political views varies with the fraction of shares held by institutional investors. Motivated by the fact that institutional investors often emphasize the role of gender and race diversity in workplace, we conjecture that institutional shareholders differ from retail shareholders in their attitude towards the diversity of executive teams.

To understand the role of institutional shareholders, we split the sample based on the percentage of shares held by institutional investors. Panel B in Table 7 reports the results. Column (2) shows that rising political polarization can only be found among firms with low institutional ownership. Column (1) indicates that firms with a high fraction of shares held by institutional investors do not exhibit an increase in sorting based on political views. This conclusion also holds when we include firm fixed effects in the regression (columns (3) and (4)), but the difference in coefficients is only statistically significant (at the 10% level) between columns (1) and (2). These findings suggest that institutional investors could be mitigating the trend in political polarization of executive teams.

4.3. Consumer Preferences

We next turn our attention to the possibility that consumers influence the role of political views in the formation of executive teams. Bertrand and Kamenica (2018) show pronounced partisan differences in consumption behavior. If Democrats and Republicans are consuming different types of goods and firms cater to the preferences of their customers, then it could be a natural consequence that the executive team reflects the political attitudes of the firm's customer base. This channel would predict a more pronounced increase in political polarization in consumer-focused industries. We therefore split the sample using an indicator equal to one for firms in GICS sectors "Consumer Discretionary" and "Consumer Staples," and zero otherwise. Panel C in Table 7 reports the results. If anything, we find that sorting based on political views is more pronounced in firms *outside* the consumer industries. Although the difference in coefficients is not statistically significant, it is economically striking. Hence, it is unlikely that executive teams are becoming more politically homogeneous by catering to a more homogeneous consumer base.

4.4. Executive Preferences

Finally, we consider the possibility that the increased sorting reflects executives' own preferences to work with individuals who share their political ideology. To test this hypothesis, we split the sample by CEO tenure. The idea behind this test is that a CEO with a longer tenure in the firm has had more opportunities to influence the ideological composition of the executive team. Therefore, we would expect a larger increase in sorting based on political views for firms with longer CEO tenure.

Panel D in Table 7 reports the results and shows that sorting based on political views is more pronounced in firms whose CEOs have above-median tenure. In column (4), we even find a negative trend in polarization for firms with short CEO tenures, and the difference in coefficients is statistically significant at the 1% level between columns (3) and (4). This result suggests that CEOs could indeed encourage like-minded people to join the executive team.

5. Discussion

Partisan animosity has increased substantially over the last 20 years. According to Pew Research, the share of individuals with a highly negative view of the opposing party has more

than doubled since 1994 for both parties. Most of these intense partisans believe the opposing party's policies "are so misguided that they threaten the nation's well-being." This polarized environment — with tensions between the two major parties at an all-time high — raises the question whether policymakers should be concerned about political discrimination in the workplace. Traditionally, discussions about discrimination in the workplace have been focusing on gender, race, sexual orientation, and age. Under Title VII of the Civil Rights Act of 1964, it is illegal for employers to make job decisions based on race, color, national origin, religion, and sex. Moreover, the Age Discrimination Act, the Americans with Disabilities Act, and the Genetic Information Nondiscrimination Act prohibit discrimination based on age, disability, and genetic information. However, these federal laws as well as most state laws do not consider discrimination by private employers based on political views. The increase in the political homogeneity of executive teams documented in this paper indicates that the rising political polarization has also entered the workplace and further questions whether discussions about workplace discrimination should also include political beliefs.

6. Conclusion

This paper establishes a new stylized fact, namely, that executive teams in U.S. firms are becoming increasingly politically polarized. We use political affiliations from voter registration records over the period 2008 and 2018, matched with information on top executives of S&P 1500 firms. Following Easterly and Levine (1997) and Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg (2003), we measure polarization as the probability that two randomly drawn executives are affiliated with the same political party. We find a 5.0 percentage-point increase in the political polarization of executive teams over our sample period. This increase is larger than the decrease in gender homogeneity over the same time period, and it is especially pronounced around presidential elections and the passage of Obamacare. The rise in political homogeneity is explained by both an increasing share of Republican executives and, to a larger degree, increased sorting by partisan executives into firms with like-minded individuals. Finally, we also explore potential mechanisms behind the increase in polarization and find that the legal environment, shareholder preferences, and CEOs could play a role in driving the rising homogeneity of executives.

Overall, our paper highlights a robust trend in the political polarization of executive teams.

This trend implies the growing tendency of U.S. individuals to socialize and form relationships and friendships with politically like-minded individuals extends also to the workplace and to high-level decision-makers. This paper is the first step toward understanding the implications of increased political polarization among firm executives for the U.S. economy.

References

Adams, Renée B., and Daniel Ferreira, 2009, Women in the boardroom and their impact on governance and performance, *Journal of Financial Economics* 94, 291 – 309.

Addoum, Jawad M., and Alok Kumar, 2016, Political sentiment and predictable returns, *Review of Financial Studies* 29, 3471–3518.

Ahern, Kenneth R., and Amy K. Dittmar, 2012, The changing of the boards: The impact on firm valuation of mandated female board representation, *Quarterly Journal of Economics* 127, 137–197.

Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat, and R. Wacziarg, 2003, Fractionalization, *Journal of Economic Growth* 8, 155–194.

Babenko, Ilona, Viktar Fedaseyeu, and Song Zhang, 2019, Do CEOs Affect Employees' Political Choices?, *Review of Financial Studies* 33, 1781–1817.

Bernile, Gennaro, Vineet Bhagwat, and Scott Yonker, 2018, Board diversity, firm risk, and corporate policies, *Journal of Financial Economics* 127, 588 – 612.

Bernstein, Shai, Rebecca Diamond, Timothy McQuade, and Beatriz Pousada, 2019, The contribution of high-skilled immigrants to innovation in the United States, Working Paper.

Bertrand, Marianne, and Emir Kamenica, 2018, Coming apart? cultural distances in the united states over time, Working Paper 24771 National Bureau of Economic Research.

Bertrand, Marianne, and Antoinette Schoar, 2003, Managing with style: The effect of managers on firm policies, *Quarterly Journal of Economics* 118, 1169–1208.

Boisso, Dale, Kathy Hayes, Joseph Hirschberg, and Jacques Silber, 1994, Occupational segregation in the multidimensional case: Decomposition and tests of significance, *Journal of Econometrics* 61, 161–171.

Bonaparte, Yosef, 2020, Is Wall Street turning blue?, Working paper.

——— , Alok Kumar, and Jeremy K. Page, 2017, Political climate, optimism, and investment decisions, *Journal of Financial Markets* 34, 69–94.

Bonica, Adam, 2016a, Avenues of influence: On the political expenditures of corporations and their directors and executives, *Business and Politics* 18, 367–394.

——— , 2016b, Database on ideology, money in politics, and elections: Public version 2.0 [Computer file], *Stanford, CA: Stanford University Libraries. https://data.stanford.edu/dime.*

Boxell, Levi, Matthew Gentzkow, and Jesse M Shapiro, 2017, Is the internet causing political polarization? evidence from demographics, Working Paper 23258 National Bureau of Economic Research.

——— , 2020, Cross-country trends in affective polarization, Working Paper 26669 National Bureau of Economic Research.

Cohen, Alma, Moshe Hazan, Roberto Tallarita, and David Weiss, 2019, The politics of CEOs, *Journal of Legal Analysis* 11.

Colonnelli, Emanuele, Valdemar Pinho Neto, and Edoardo Teso, 2020, Politics at work, Working paper.

Dagostino, Ramona, Janet Gao, and Pengfei Ma, 2020, Partisanship in loan pricing, Working Paper.

Duchin, R., Abed El Karim Farroukh, J. Harford, and T. Patel, 2019, Political attitudes, partisanship, and merger activity, Working Paper.

Easterly, William, and Ross Levine, 1997, Africa's growth tragedy: Policies and ethnic divisions, *Quarterly Journal of Economics* 112, 1203–1250.

Fich, Eliezer M., 2005, Are some outside directors better than others? Evidence from director appointments by Fortune 1000 firms, *Journal of Business* 78, 1943 – 1972.

Gentzkow, Matthew, 2016, Polarization in 2016, *Toulouse Network of Information Technology White Paper.*

Gerber, Alan S., and Gregory A. Huber, 2009, Partisanship and economic behavior: Do partisan differences in economic forecasts predict real economic behavior?, *American Political Science Review* 103, 407—426.

Gieczewski, Germán, 2021, Policy persistence and drift in organizations, *Econometrica* 89, 251–279.

Gift, Karen, and Thomas Gift, 2015, Does politics influence hiring? Evidence from a randomized experiment, *Political Behavior* 37, 653–677.

Giglio, Stefano, Matteo Maggiori, Johannes Stroebel, and Stephen Utkus, 2021, Five facts about beliefs and portfolios, *American Economic Review* 111, 1481–1522.

Gillitzer, Christian, and Nalini Prasad, 2018, The effect of consumer sentiment on consumption: Cross-sectional evidence from elections, *American Economic Journal: Macroeconomics.*

Gimpel, James G., and Iris Hui, 2018, Political fit as a component of neighborhood preference and satisfaction, *City & Community* 17, 883–905.

Gimpel, James G., and Iris S. Hui, 2015, Seeking politically compatible neighbors? The role of neighborhood partisan composition in residential sorting, *Political Geography* 48, 130–142.

Gordon, Sanford C., Catherine Hafer, and Dimitri Landa, 2007, Consumption or investment? On motivations for political giving, *Journal of Politics* 69, 1057–1072.

Gormley, Todd A, Mahsa Kaviani, and Hosein Maleki, 2020, Are judges like umpires? Political affiliation and corporate prosecutions, Working Paper.

Hellerstein, Judith K., and David Neumark, 2008, Workplace segregation in the United States: Race, ethnicity, and skill, *Review of Economics and Statistics* 90, 459–477.

Hertel-Fernandez, Alexander, 2020, Power and politics in the U.S. workplace, *Economic Policy Institute.*

Igielnik, Ruth, Scott Keeter, Courtney Kennedy, and Bradley Spahn, 2018, Commercial voter files and the study of U.S. politics, *Pew Research Report.*

Iyengar, Shanto, Tobias Konitzer, and Kent Tedin, 2018, The home as a political fortress: Family agreement in an era of polarization, *Journal of Politics* 80, 1326–1338.

Iyengar, Shanto, Gaurav Sood, and Yphtach Lelkes, 2012, Affect, not ideology, *Public Opinion Quarterly* 76, 405–431.

Kempf, Elisabeth, and Margarita Tsoutsoura, 2020, Partisan professionals: Evidence from credit rating analysts, *Journal of Finance* forthcoming.

Lee, Jongsub, Kwang J. Lee, and Nandu J. Nagarajan, 2014, Birds of a feather: Value implications of political alignment between top management and directors, *Journal of Financial Economics* 112, 232–250.

Lott, John R., and Kevin A. Hassett, 2014, Is newspaper coverage of economic events politically biased?, *Public Choice* 160, 65–108.

Makridis, Christos, 2019, Sentimental business cycles and the protracted Great Recession, Working Paper.

Mason, Lilliana, 2013, The rise of uncivil agreement: Issue versus behavioral polarization in the American electorate, *American Behavioral Scientist* 57, 140–159.

——— , 2015, I disrespectfully agree: The differential effects of partisan sorting on social and issue polarization, *American Journal of Political Science* 59, 128–145.

Masulis, Ronald W., Cong Wang, and Fei Xie, 2012, Globalizing the boardroom—the effects of foreign directors on corporate governance and firm performance, *Journal of Accounting and Economics* 53, 527 – 554.

McCartney, W.Ben, and Calvin Zhang, 2019, Short selling: Political affiliation and households' real estate decisions, Working Paper.

McGrath, Mary C., 2017, Economic behavior and the partisan perceptual screen, *Quarterly Journal of Political Science* 11, 363–383.

Meeuwis, Maarten, Jonathan A Parker, Antoinette Schoar, and Duncan I Simester, 2018, Belief disagreement and portfolio choice, Working Paper 25108 National Bureau of Economic Research.

Mian, Atif R., Amir Sufi, and Nasim Khoshkhou, 2021, Partisan bias, economic expectations, and household spending, *Review of Economics and Statistics* Forthcoming.

Mummolo, Jonathan, and Clayton Nall, 2017, Why partisans do not sort: The constraints on political segregation, *Journal of Politics* 79, 45–59.

Mutz, Diana C., and Jeffery J. Mondak, 2006, The workplace as a context for cross-cutting political discourse, *Journal of Politics* 68, 140–155.

Nguyen, Tuan, Stuart Locke, and Krishna Reddy, 2015, Does boardroom gender diversity matter? Evidence from a transitional economy, *International Review of Economics Finance* 37, 184 – 202.

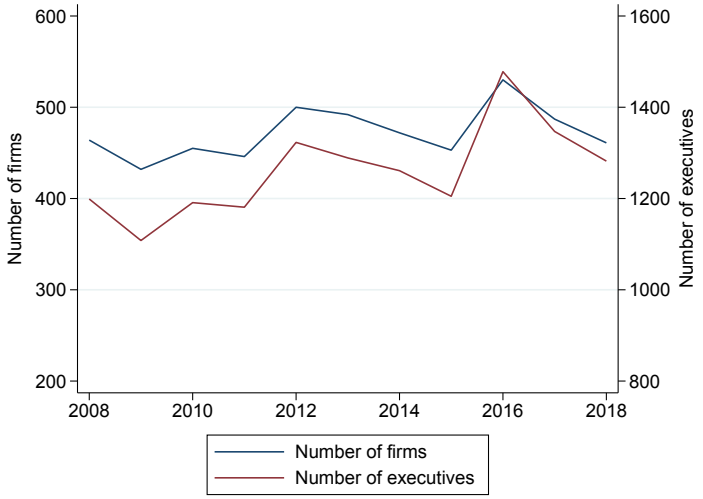
Nijkamp, Peter, and Jacques Poot, 2015, Cultural diversity: A matter of measurement, *IZA Discussion Paper No. 8782*.

Pew Research Center, 2017, Key takeaways on Americans' growing partisan divide over political values, *Pew Research Center* Author: Carroll Doherty.

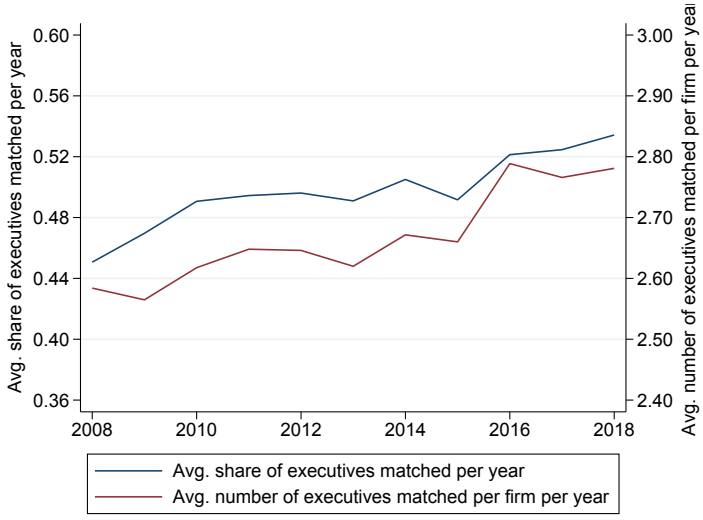
Rice, Adam, 2020, Partisan investment cycles, Working Paper.

Westphal, James D., and Edward J. Zajac, 1995, Who shall govern? CEO/board power, demographic similarity, and new director selection, *Administrative Science Quarterly* 40, 60–83.

Ye, Junting, Shuchu Han, Yifan Hu, Baris Coskun, Meizhu Liu, Hong Qin, and Steven Skiena, 2017, Nationality classification using name embeddings, in *Proceedings of the 2017 ACM on Conference on Information and Knowledge Management* 1897–1906.



(a) Sample Size by Year



(b) Match Rate by Year

Figure 1: Sample Size and Match Rate by Year

The figure shows the sample size and match rate over time. In Panel A, we plot the number of unique firms and executives for each calendar year. In Panel B, we show the average share of executives that are matched with a voter record as well the average number of executives matched by firm and year. In both panels, we condition on firms with at least two matched executives, and we restrict the sample to those matched to either a Democratic or Republican party affiliation.

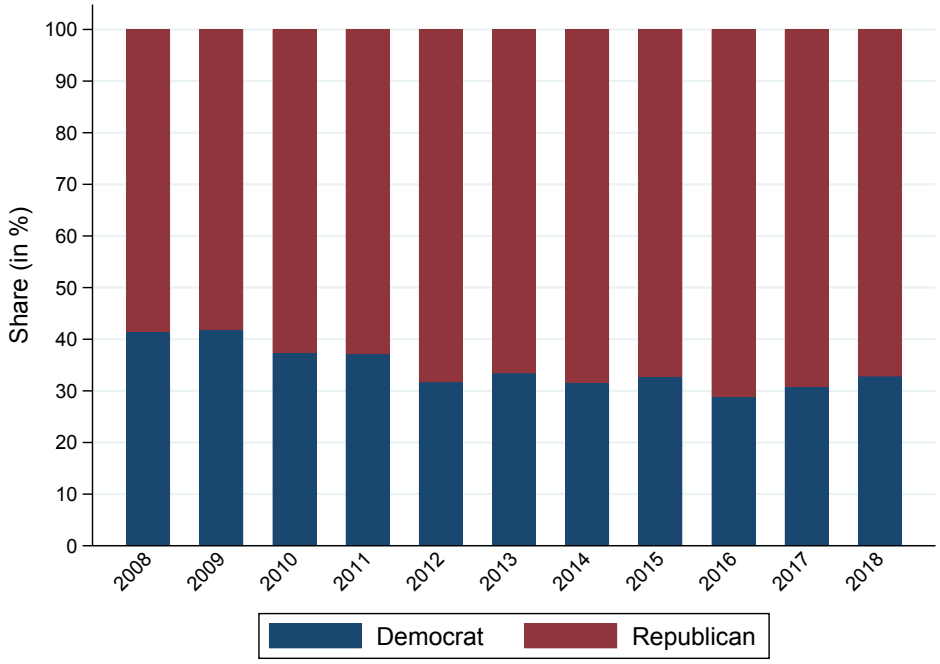
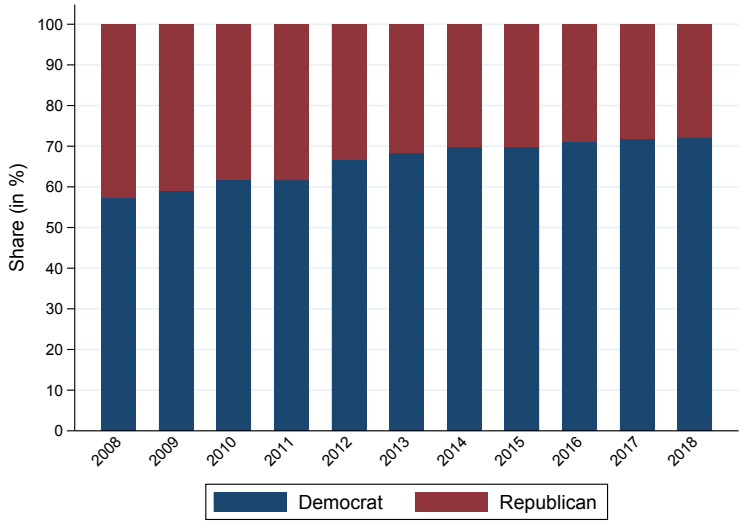
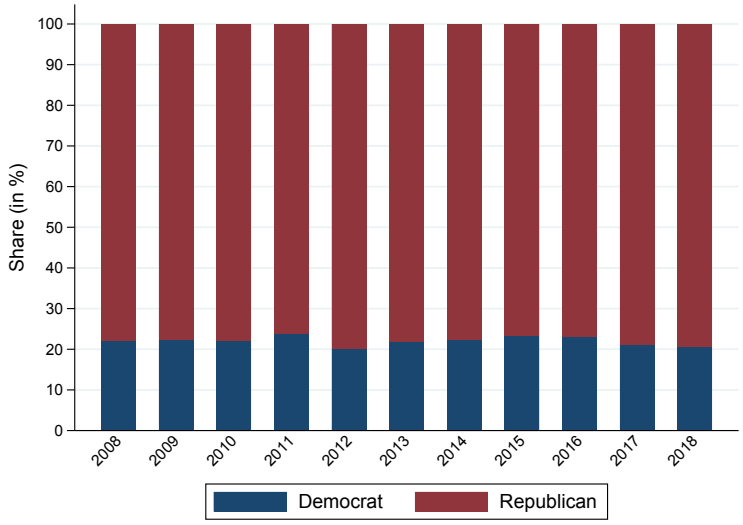


Figure 2: Party Distribution

The figure shows the distribution of party affiliations from voter registration records over time after restricting the sample to Democratic or Republican executives.



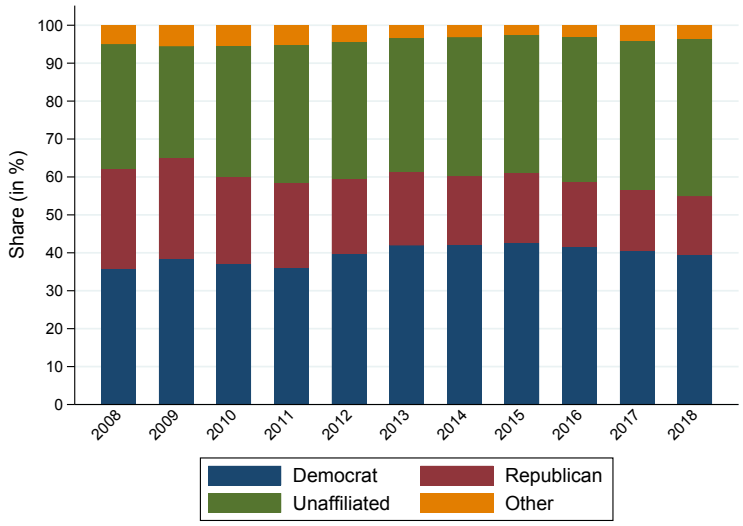
(a) Registered Democrats



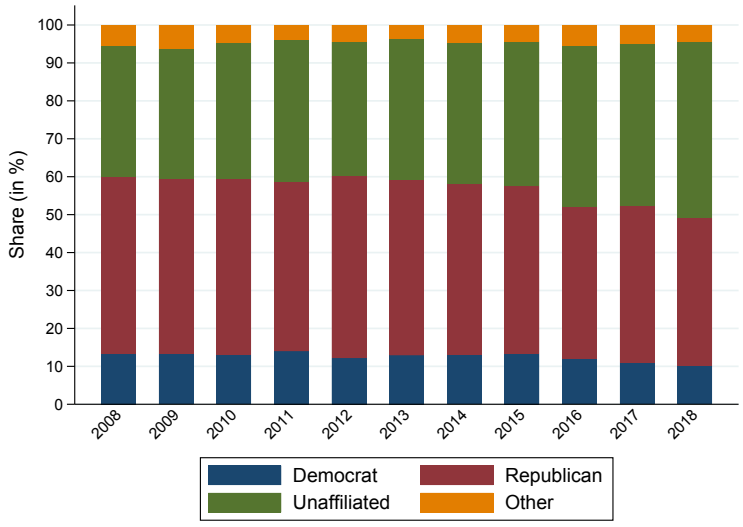
(b) Registered Republicans

Figure 3: Party Distribution of Political Contributions by Voter Registration

The figure shows the party distribution of political contributions over time, separately for executives who are registered Democrats and registered Republicans. We restrict contributions to those made to either the Democratic or the Republican party.



(a) Registered Democrats



(b) Registered Republicans

Figure 4: Party Distribution for Political Contributions by Voter Registration (Including Unaffiliated)

The figure shows the distribution of party affiliations from political contributions over time, separately for executives who are registered Democrats and registered Republicans.

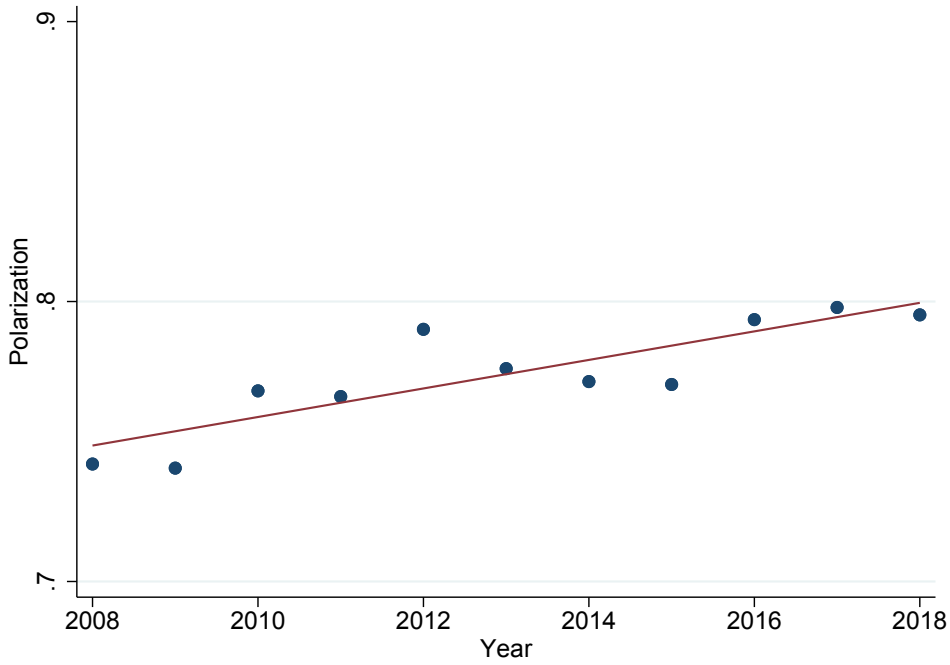


Figure 5: Political Homogeneity over Time

The figure shows the political homogeneity of executive teams in Execucomp over time. Homogeneity is measured as the probability that two randomly drawn team members are either both Democrats or both Republicans. We restrict the sample to firm-years with at least two matched executives.

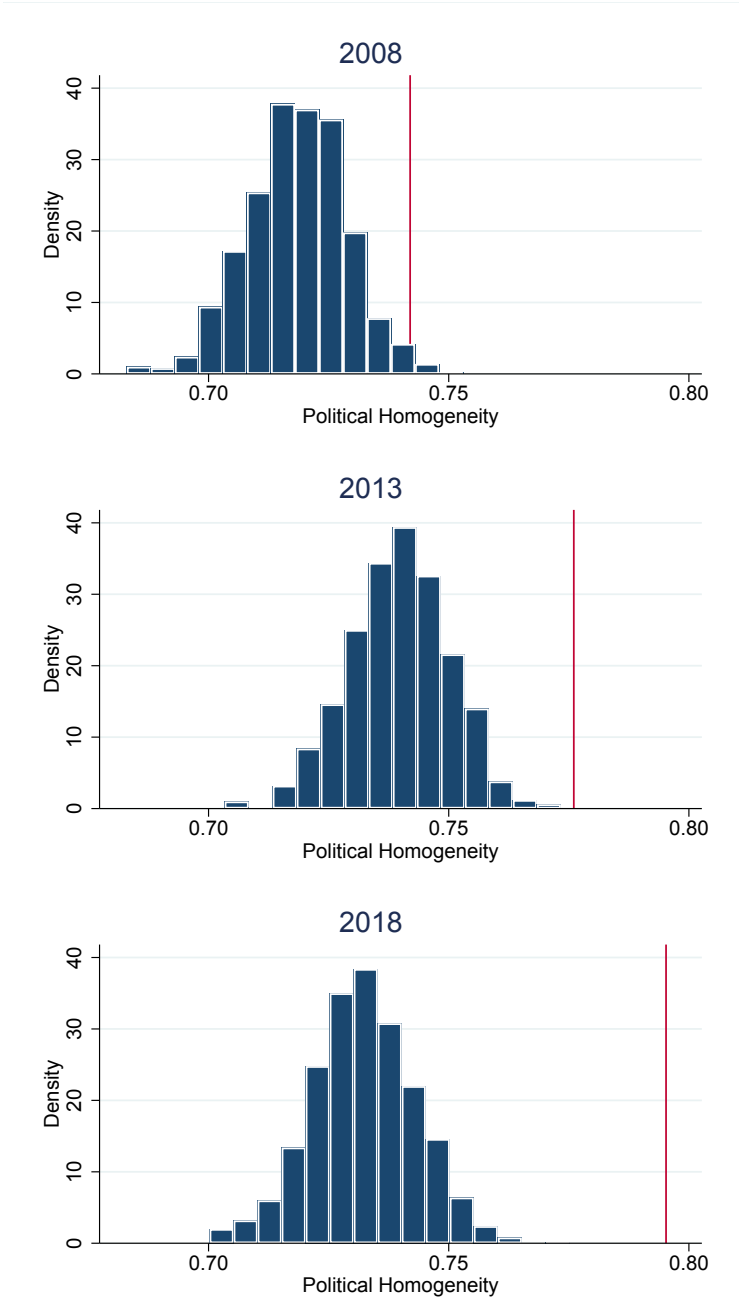
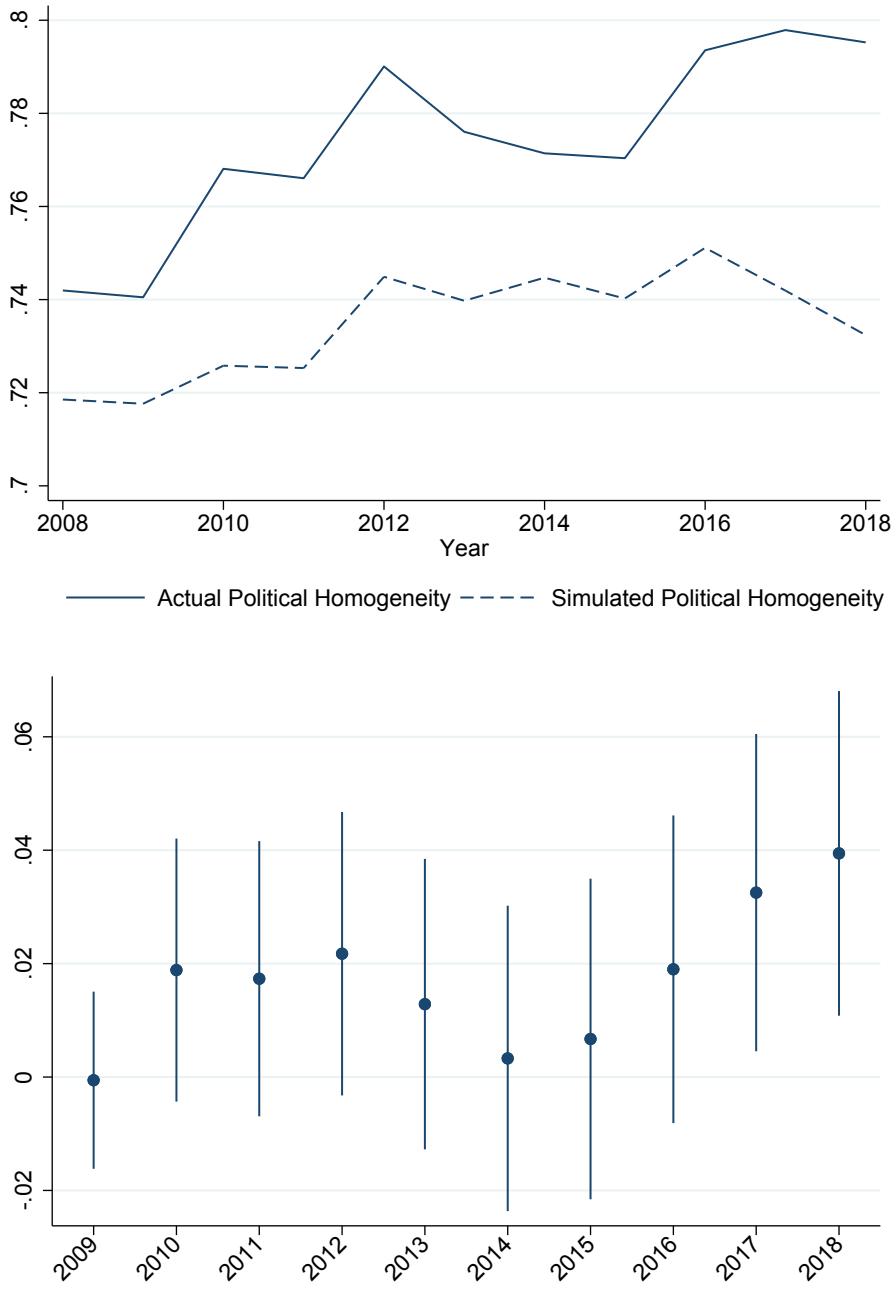


Figure 6: Political Homogeneity: Simulation vs. Actual

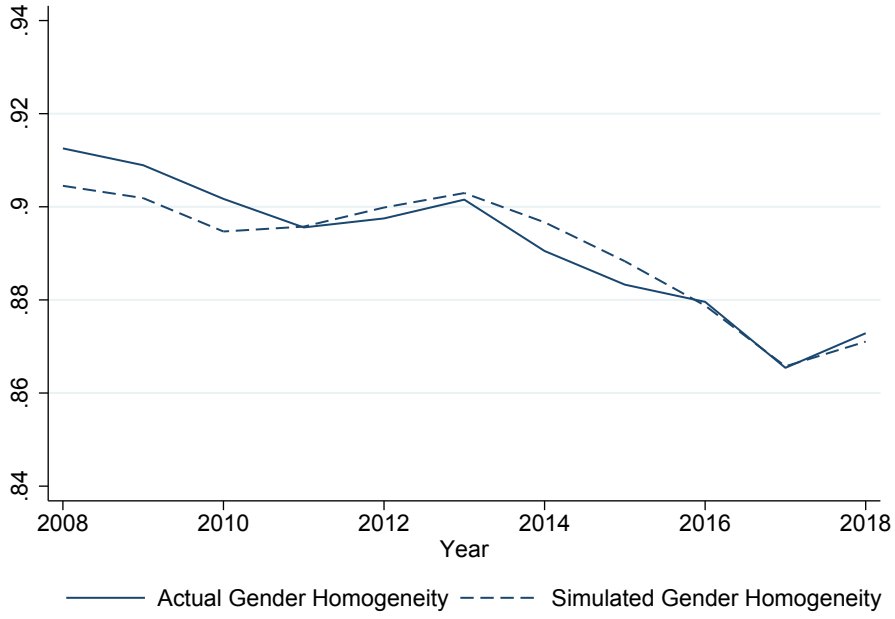
The figure plots the histogram of simulated political homogeneity measures after 1,000 simulations. Executives are randomly assigned a political party, using the distribution of party affiliation across the sample of executives in a given calendar year. The red line shows the actual homogeneity of the average firm in a given calendar year from our sample after restricting the sample to those matched to either a Democratic or Republican party affiliation.



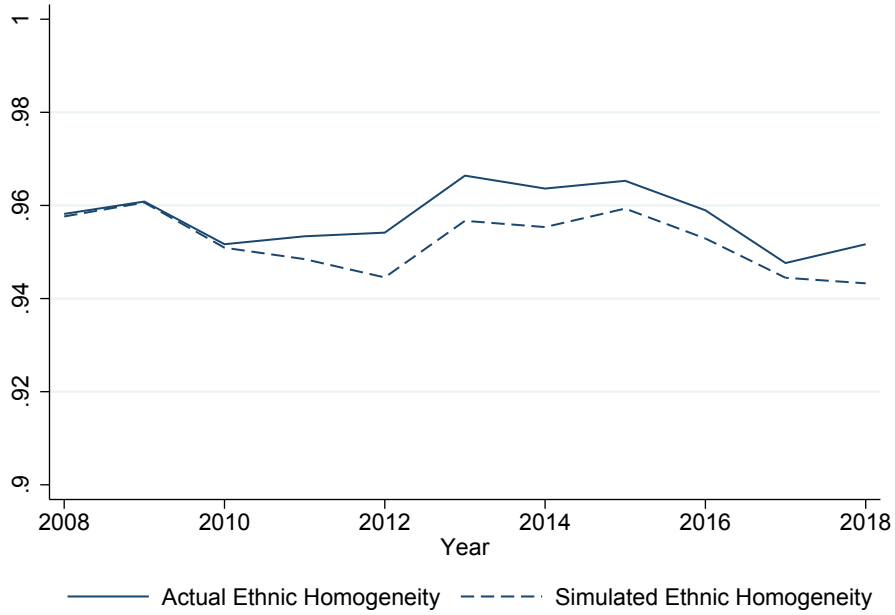
(a) Difference between Actual and Simulated Political Homogeneity

Figure 7: Political Homogeneity: Simulation vs. Actual (Year-by-Year)

Panel A plots the difference between the actual political homogeneity of executive teams in the data (solid line) and the simulated political homogeneity (dashed line) for each calendar year. For the simulation, executives are randomly assigned a political party using the distribution of party affiliation across the full sample of executives in a given calendar year. Panel B plots the average difference between the actual political homogeneity and the simulated homogeneity for each calendar year, along with the corresponding 95% confidence interval. Standard errors are clustered at the firm level. The reference year in Panel B is 2008.



(a) Gender Homogeneity



(b) Ethnic Homogeneity

Figure 8: Other Homogeneity: Simulation vs. Actual (Year-by-Year)

The figure plots the difference between the actual homogeneity of executive teams in the data (solid line) and the simulated homogeneity (dashed line) for each calendar year. Panel A reports results for gender homogeneity, and Panel B for ethnic homogeneity. For the simulation, executives are randomly assigned a gender or an ethnicity using the distribution of gender and ethnicity across the full sample of executives in a given calendar year.

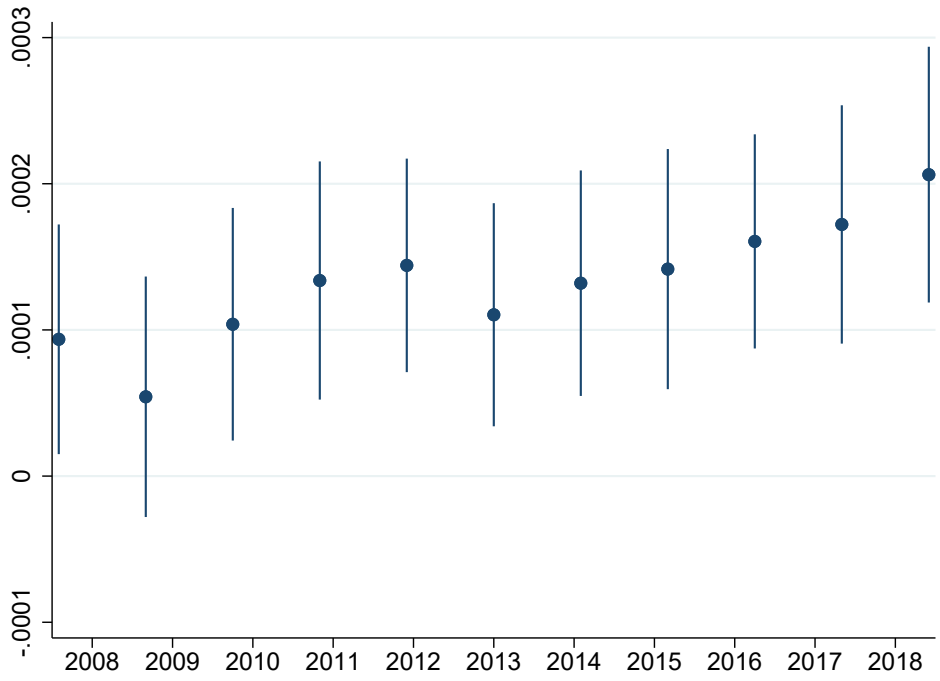


Figure 9: Political Homogeneity: Evidence from Dyadic Regressions

The figure plots the coefficient β^{SP} and the corresponding 95% confidence interval from equation (2), estimated separately for each year in our sample.

Table 1: Summary Statistics

This table presents summary statistics for our key variables. Panel A reports statistics for the firm-year panel; Panel B reports statistics for our analysis of executive departures (executive-year panel).

	N	Mean	St.Dev.	0.25	Median	0.75
Panel A: Firm-Level Sample						
Political homogeneity	4,183	0.786	0.236	0.500	1.000	1.000
Gender homogeneity	4,183	0.932	0.164	1.000	1.000	1.000
Ethnic homogeneity	4,183	0.958	0.134	1.000	1.000	1.000
Democrat share	4,183	0.441	0.374	0.000	0.500	0.667
Republican share	4,183	0.559	0.374	0.333	0.500	1.000
Male share	4,183	0.932	0.171	1.000	1.000	1.000
White share	4,183	0.954	0.152	1.000	1.000	1.000
Hispanic share	4,183	0.008	0.059	0.000	0.000	0.000
Black share	4,183	0.004	0.043	0.000	0.000	0.000
Asian share	4,183	0.034	0.135	0.000	0.000	0.000
Number of executives	4,183	5.580	1.197	5.000	5.000	6.000
Number of matched executives	4,183	2.525	0.776	2.000	2.000	3.000
Panel B: Executive-Departures Sample						
Executive departure	22,632	0.132	0.338	0.000	0.000	0.000
Match majority	22,632	0.494	0.500	0.000	0.000	1.000
Tenure	22,632	5.088	3.995	2.000	4.000	7.000
White	22,632	0.952	0.214	1.000	1.000	1.000
Above 65 years old	22,632	0.065	0.247	0.000	0.000	0.000
Female	22,632	0.095	0.293	0.000	0.000	0.000
Majority Democrats	22,632	0.235	0.424	0.000	0.000	0.000
Majority Republicans	22,632	0.593	0.491	0.000	1.000	1.000

Table 2: Homogeneity in Executive Teams over Time

This table regresses the executive team's homogeneity on calendar year. Homogeneity is defined as the probability that two randomly drawn team members have the same political affiliation (Panel A), the same gender (Panel B), or the same ethnicity (Panel C), respectively. *No. of matches* refers to the number of matched executives in the team. *Diversity controls* include measures of ethnic, gender, and age homogeneity in Panel A; political, ethnic, and age homogeneity in Panel B; and political, gender, and age homogeneity in Panel C. Standard errors are clustered at the firm level. The dependent variables are measured in percentage points and the unit of observation is the firm-year. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Political Affiliation

Dependent variable: *Political Homogeneity*					
	(1)	(2)	(3)	(4)	(5)
Year	0.5099***	0.5704***	0.5826***	0.5523***	0.5622***
	(0.1454)	(0.1459)	(0.1463)	(0.1537)	(0.1541)
N	5,192	5,192	5,189	5,084	5,082
R^2	0.00	0.01	0.02	0.64	0.64
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Panel B: Gender

Dependent variable: *Gender Homogeneity*					
	(1)	(2)	(3)	(4)	(5)
Year	-0.4412***	-0.3876***	-0.3841***	-0.3129***	-0.3246***
	(0.0917)	(0.0912)	(0.0929)	(0.0854)	(0.0881)
N	7,824	7,824	7,821	7,746	7,744
R^2	0.01	0.02	0.02	0.68	0.68
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Panel C: Ethnicity

Dependent variable: *Ethnic Homogeneity*

	(1)	(2)	(3)	(4)	(5)
Year	-0.2437***	-0.2389***	-0.2503***	-0.2329***	-0.2622***
	(0.0737)	(0.0743)	(0.0770)	(0.0721)	(0.0759)
N	7,824	7,824	7,821	7,746	7,744
R^2	0.00	0.00	0.01	0.68	0.68
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Table 3: Political Homogeneity in Executive Teams Over Time (Alternative Samples)

This table repeats Table 2 for alternative samples. In Panel A, we add unaffiliated executives. In Panel B, we complement our historical party affiliations with party affiliations from states that do not provide voter histories, measured as of 2018. In Panel C, we restrict the within-person variation in party affiliation to zero by carrying forward the first observation for each executive. The dependent variable is always political homogeneity, which is defined as the probability that two randomly drawn team members are either both Democrats or both Republicans. Diversity controls include measures of team homogeneity in ethnicity, gender, and age. Standard errors are clustered at the firm level. All coefficients are in percentage points.

Panel A: Including Unaffiliated

	(1)	(2)	(3)	(4)	(5)
Year	0.5868***	0.6928***	0.7026***	1.0090***	1.0379***
	(0.1583)	(0.1580)	(0.1597)	(0.1607)	(0.1615)
N	7,824	7,824	7,821	7,746	7,744
R^2	0.00	0.03	0.03	0.65	0.65
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Panel B: Including Static Party Information

	(1)	(2)	(3)	(4)	(5)
Year	0.3082***	0.2977***	0.3250***	0.2739***	0.2903***
	(0.0970)	(0.0961)	(0.0968)	(0.0970)	(0.0977)
N	10,732	10,732	10,727	10,595	10,591
R^2	0.00	0.02	0.03	0.63	0.63
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Panel C: No Within-Person Variation

	(1)	(2)	(3)	(4)	(5)
Year	0.3370**	0.4272***	0.4426***	0.3610**	0.3747**
	(0.1462)	(0.1463)	(0.1464)	(0.1505)	(0.1506)
N	5,192	5,192	5,189	5,084	5,082
R^2	0.00	0.02	0.03	0.68	0.69
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Table 4: Political Homogeneity in Executive Teams Over Time (Alternative Measures)

This table repeats Table 2 using alternative measures of homogeneity. In Panel A, homogeneity is an indicator variable equal to one if one party has a 100% share among all matched executives in the team, and zero otherwise. In Panel B, homogeneity is the absolute difference between the share of Republicans and Democrats. In all graphs, we restrict the sample to firm-years with at least two matched executives.

Panel A: Single-Party Team

	(1)	(2)	(3)	(4)	(5)
Year	0.9808***	1.2226***	1.2496***	1.1849***	1.2083***
	(0.3099)	(0.3079)	(0.3090)	(0.3259)	(0.3265)
N	5,192	5,192	5,189	5,084	5,082
R^2	0.00	0.04	0.04	0.64	0.64
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Panel B: Absolute Share Difference

	(1)	(2)	(3)	(4)	(5)
Year	1.0138***	0.9812***	1.0000***	0.9265***	0.9395***
	(0.2677)	(0.2684)	(0.2689)	(0.2820)	(0.2831)
N	5,192	5,192	5,189	5,084	5,082
R^2	0.01	0.01	0.01	0.64	0.64
Fixed Effects and Controls:					
No. of matches	No	Yes	Yes	Yes	Yes
Diversity Controls	No	No	Yes	No	Yes
Firm f.e.	No	No	No	Yes	Yes

Table 5: Dyadic Regressions

This table regresses estimates dyadic regressions from equation (2). The dependent variable, $Same\,Firm$, is a binary variable equal to one if both executives work for the same firm, and zero otherwise. $SParty$ is an indicator equal to one when both executives have the same political affiliation, and zero otherwise. The estimation includes controls for shared ethnicity, age, gender, and location (state). All reported coefficients are multiplied by 100. The sample is restricted to registered Republicans and Democrats only. The unit of observation is the executive-pair-year. Standard errors are clustered at the executive pair level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent variable: *Same Firm*				
	(1)	(2)	(3)	(4)
SParty	0.0481***	0.0487***	0.0261***	0.0262***
	[0.0054]	[0.0054]	[0.0053]	[0.0053]
SGender			-0.0004	0.0000
			[0.0072]	[0.0072]
SRace			0.0629***	0.0630***
			[0.0097]	[0.0097]
SAge			0.0272***	0.0273***
			[0.0059]	[0.0059]
Sstate			0.9776***	0.9778***
			[0.0180]	[0.0180]
Constant	0.1283***		-0.0836***	
	[0.0037]		[0.0113]	
R^2	0.000	0.000	0.008	0.008
N	8,762,547	8,762,547	8,762,547	8,762,547
Fixed Effects:				
Year	No	Yes	No	Yes

Table 6: Executive Departures

This table regresses executive departures on an indicator equal to one if the executive's party affiliation matches the majority of the team (see equation (3)). The dependent variable, *Executive Departure*, is a binary variable equal to one in the year the executive departs from the team, and zero otherwise. *Match majority* is an indicator equal to one when the political affiliation of the executive matches that of the majority in the team, and zero otherwise. The estimation includes controls for tenure of the executive in the firm, ethnicity, whether the executive is older than 65, gender, and the political affiliation of the majority of the team. The sample is restricted to executives who are registered Republicans, Democrats, or unaffiliated voters. Columns (1) and (2) are based on the full sample, columns (3) and (4) are based on years 2008–2014, and columns (5) and (6) are based on years 2015–2017. The unit of observation is the executive-year. Standard errors clustered at the firm level. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Dependent variable: *Executive Departure*						
Sample Period:	Full Sample		2008–2014		2015–2017	
	(1)	(2)	(3)	(4)	(5)	(6)
Match Majority	-0.0352***	-0.0251**	-0.0140	-0.0050	-0.0828***	-0.0726***
	(0.0092)	(0.0095)	(0.0111)	(0.0112)	(0.0197)	(0.0196)
Tenure	0.0029***	0.0028**	0.0031**	0.0028*	0.0039**	0.0027*
	(0.0008)	(0.0009)	(0.0011)	(0.0011)	(0.0014)	(0.0013)
White	0.0188	0.0204	0.0057	0.0047	0.0448*	0.0482*
	(0.0131)	(0.0129)	(0.0160)	(0.0155)	(0.0228)	(0.0218)
Age over 65	0.1208***	0.1114***	0.1077***	0.0974***	0.1432***	0.1361***
	(0.0136)	(0.0137)	(0.0167)	(0.0162)	(0.0246)	(0.0243)
Female	0.0261**	0.0216*	0.0115	0.0061	0.0553**	0.0490**
	(0.0099)	(0.0099)	(0.0124)	(0.0123)	(0.0174)	(0.0169)
Majority Democrat	0.0287*		0.0007		0.1172**	
	(0.0123)		(0.0151)		(0.0359)	
Majority Republican	0.0375***		0.0140		0.1197***	
	(0.0108)		(0.0137)		(0.0273)	
N	22632	22632	15581	15581	7051	7051
R^2	0.098	0.346	0.116	0.350	0.177	0.336
Fixed Effects:						
Firm	Yes	No	Yes	No	Yes	No
Year	Yes	No	Yes	No	Yes	No
Firm × Year	No	Yes	No	Yes	No	Yes
Political Affiliation	Yes	Yes	Yes	Yes	Yes	Yes

Table 7: Heterogeneity Tests

This table regresses the difference between the actual political homogeneity and the average simulated political homogeneity of the firm's executive team on calendar year using different subsamples. For the simulation, executives are randomly assigned a political party using the distribution of party affiliation across the full sample of executives in a given calendar year. We split the sample using an indicator for firms headquartered in states with a law in place that prohibits workplace discrimination based on political ideology (Panel A), an indicator for firms with above-median percentage of institutional ownership in a given year (Panel B), an indicator for firms in GICS sectors "Consumer Discretionary" and "Consumer Staples" (Panel C), and an indicator for firms with above-median CEO tenure (Panel D), respectively. *p*-values from a Wald test that assesses the difference in coefficients across the two subsamples are reported at the bottom of the table. Standard errors are clustered at the firm level. The dependent variable is measured in percentage points and the unit of observation is the firm-year. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Anti-Discrimination Law Status

Dependent variable: *Actual – Simulated Polarization*				
	With Law	No Law	With Law	No Law
	(1)	(2)	(3)	(4)
Year	-0.0615	0.9477***	0.1460	0.4663***
	(0.1313)	(0.2026)	(0.1011)	(0.1630)
N	3,162	1,328	3,162	1,328
R^2	0.00	0.02	0.66	0.67
p-values	0.003		0.372	
Fixed Effects:				
Firm f.e.	No	No	Yes	Yes

Panel B: Institutional Ownership

Dependent variable: *Actual – Simulated Polarization*				
	High IO	Low IO	High IO	Low IO
	(1)	(2)	(3)	(4)
Year	-0.1788	0.3856***	0.0352	0.2170**
	(0.2040)	(0.1312)	(0.1736)	(0.1058)
N	1,640	2,850	1,640	2,850
R^2	0.00	0.00	0.70	0.71
p-values	0.067		0.596	
Fixed Effects:				
Firm f.e.	No	No	Yes	Yes

Panel C: Consumer Industries

Dependent variable: *Actual – Simulated Polarization*

	Consumer Industry	No Consumer Industry	Consumer Industry	No Consumer Industry
	(1)	(2)	(3)	(4)
Year	-0.3010	0.3515***	0.0557	0.2748***
	(0.2575)	(0.1224)	(0.2159)	(0.0935)
N	802	3,658	802	3,658
R^2	0.00	0.00	0.64	0.67
p-values	0.112		0.616	
Fixed Effects:				
Firm f.e.	No	No	Yes	Yes

Panel D: CEO Tenure

Dependent variable: *Actual – Simulated Polarization*

	Long Tenure	Short Tenure	Long Tenure	Short Tenure
	(1)	(2)	(3)	(4)
Year	0.4816***	-0.2494	0.4812***	-0.8873***
	(0.1833)	(0.3170)	(0.1423)	(0.2899)
N	1,442	809	1,442	809
R^2	0.00	0.00	0.73	0.85
p-values	0.195		0.007	
Fixed Effects:				
Firm f.e.	No	No	Yes	Yes