

# Does Familiarity Breed Contempt?

Interracial Interactions, Racial Polarization, and Hiring Decisions in the  
Federal Judiciary

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## ABSTRACT

We study the effect of hearing cases alongside nonwhite judicial colleagues on the probability that a federal judge hires a nonwhite law clerk. Federal judges are assigned to judicial panels at random and have few limitations on their choices of law clerks. Using a unique dataset of federal case records merged with judicial hiring information, we find that White judges who are randomly assigned to cases at higher rates with nonwhite colleagues are no more likely to hire nonwhite law clerk as a result. This finding presents a surprising contrast to prior work in Battaglini, Harris, Patacchini (2021) which found strong positive effects on interaction with female colleagues on hiring of women.

**JEL Codes:** J15, J82, J71

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# INTRODUCTION

Racial inequality and racial segregation are highly persistent, both in the United States and internationally. In the United States, Black/White wealth inequality has fallen only twice: during reconstruction and during the civil rights era. In periods when the federal government was not actively involved in efforts to reduce inequality, inequality has not decreased (Derencourt 2022). Likewise, segregation in US cities, particularly between Black and White households, has persisted well past the civil rights era, with average residential racial segregation greater in 2010 than in 1940 (Abramovitz and Smith 2021).

This persistent inequality appears to be driven in part by the persistence of racially prejudiced beliefs. Numerous audit studies of housing and employment have found that applications from nonwhite individuals are less likely to be accepted than are applications by otherwise identical white individuals. Guryan and Charles (2008) demonstrate that variation in stated racial prejudice in the United States is related to racial wealth gaps in the manner predicted by Becker's (1971) theories of taste-based discrimination.

A vast, long-standing literature in economics, psychology and sociology has thus sought to understand why people hold prejudiced beliefs and how these beliefs can change. Among these theories, one of the most prominent and influential is the contact hypothesis (Allport, 1954), which posits that prejudiced beliefs are maintained by a lack of meaningful experience with members of marginalized groups. Allport and later researchers have thus argued that prejudice is most effectively countered by meaningful, cooperative, equal interactions with members of out-groups, during which prejudiced individuals can challenge and modify their beliefs. This hypothesis is supported by a small number of high-quality studies (Paluck et. al. 2018) that exploit naturally-occurring or experimentally generated cases of inter-group contact. These studies have found that contact with members of marginalized racial or ethnic groups can reduce prejudice in the context of amateur athletics (Mousa 2020; Lowe 2021) and assignment to roommates (Boisjoly et al. 2006).

However, an alternate hypothesis (Blumer 1958) holds that contact with members of marginalized groups may inspire intensification of prejudice if this contact highlights threats to a privileged group's economic or political dominance. For example, Bauges and Esteve-Volart (2010) find that men give worse reviews to female tenure candidates when randomly assigned to a tenure committee with more female members. Likewise, a meta-analysis conducted by Troop and Pettigrew (2005) finds that contact with racial minority groups increases warmth toward members of the minority group but has no consistent effect on beliefs and prejudices toward the group.

In this paper, we present the first high-quality empirical evidence on the effect of professional interaction with ethnic minorities on the decisions of professionals. We extend Battaglini, Harris, and Patacchini (2021)—which examined the effect of interacting with female colleagues on the hiring of female clerks—by examining interracial interactions. In particular, we estimate the effect of being randomly assigned to cases with Black, Hispanic, and Asian federal appellate judges on the likelihood that white judges hire a Black, Hispanic, or Asian law clerk. As in Battaglini, Harris, and Patacchini (2021), our analysis takes advantage of two institutional characteristics of the federal appellate court system. First, judges hear cases on panels of three or more judges, and are assigned to cases at random. As a consequence, the frequency with which a judge works with each of their colleagues over the course of a year is unrelated to the judge's attitudes, preferences, and characteristics. Second, judges hire a staff of judicial law clerks who assist with the research and writing of cases. Because federal clerkships are highly sought-after and intensely competitive positions, judges have broad discretion over who to hire as a law clerk.

We take advantage of these two characteristics by examining whether judges are more or less likely to hire nonwhite law clerks in years when they were randomly assigned to a larger number of cases with judges of the clerk's racial and ethnic background. While Battaglini, Harris, and Patacchini (2021) find a strong, positive effect of a judge's interaction with female colleagues on their hiring of female law clerks, we find no effect of a judge's interaction with nonwhite colleagues on their hiring of nonwhite law clerks.

This work has several implications. First, it suggests that in the federal judiciary, underrepresentation of women is driven by different dynamics than is the underrepresentation of racial minorities. These differences may include differences in the diversity of highly-qualified law school graduates who are interested in working as law clerks, differences in the characteristics of female and nonwhite judges, or differences in the nature of sex-based and race-based prejudice. Because federal clerkships are a key source of training for future judges and highly placed attorneys, barriers to the diversity of federal clerkships are important even if they are not broadly generalizable to the economy as a whole.

Second, this work holds important lessons for the role of segregation in maintaining racial inequality. Becker's theories and other theories of discrimination based on tastes contain a striking prediction: in contexts where individuals freely associate, the least prejudiced individuals will have the least frequent association with members of marginalized or minority groups. While this voluntary association minimizes the direct negative impact of prejudice on marginalized people, it also means that prejudiced individuals are rarely exposed to professional and personal contacts with the potential to reduce prejudice. Concern that a lack of contact could perpetuate prejudice as thus led some policymakers to take active efforts to promote diversity across organizations, even if doing so exposes marginalized individuals to hostile environments. Our work suggests that, at least for established individuals in powerful and controversial roles, diversity and exposure to difference may have fewer positive benefits than we might hope.

## SECTION 2: INSTITUTIONAL SETTING

### 2.1: The Federal Court System

The federal court system is described in greater detail in Battaglini, Harris, and Patacchini (2021). However, we highlight a few key features here. Federal courts have three levels: district courts, appellate courts, and the US Supreme Courts. Cases are first heard in district courts in front of a single, randomly selected judge. The district judge presides over a trial, hears evidence, and makes a ruling on the basis of the evidence and of their interpretation of the law. After a case is

heard by a district court, all parties are entitled to appeal the decision an appellate court. Cases appealed to an appellate court are assigned to a panel of three or more randomly selected appellate judges, who review the findings of the district court. Appellate judges review whether the law was properly applied by the district courts, but do not hear new evidence. Appellate panels decide the outcome of the case through majority vote, and can choose to publish an opinion explaining their reasoning and putting their ruling forward as precedent for future cases. Finally, parties can appeal the ruling of the appellate court to the Supreme Court. However, because Supreme Court has discretion over which appeals to hear, appellate court rulings are almost always final.

Federal courts are primarily organized geographically, with the same judges hearing civil and criminal cases covering all areas of federal law. As a consequence, the content of cases heard by district and appellate judges varies year-by-year as a consequence of random assignment. In addition, because appellate courts hear cases in panels, each judge's exposure to each of their colleagues varies at random over the course of the year.

## **2.2: Federal Law Clerks**

Federal judges hire a staff of administrative assistants and law clerks. Law clerks assist judges by performing legal research, writing judicial opinions, and making initial determinations about whether cases require oral argument. Clerks are hired by and work for individual judges, and judges have broad discretion over who they employ as a clerk. Federal clerkships are highly prestigious positions, and are key pathways to the judiciary and to top positions in government, non-profit, and corporate law (Rhinehardt 1994). As a consequence of this prestige, more than 50% of appellate court clerks and 25% of district court clerks attended a “Top-14” law school. Clerks are typically offered positions as early as their first or second year of law school—as a consequence, judges typically hire clerks two years prior to their first year of employment.

## **2.3: Race and Gender in the Federal Judiciary**

The legal profession has diversified considerably in the past fifty years. While fewer than 10% of law students were women in 1970, a majority of law students have been female since 2016.

Likewise, Black, Hispanic, and Asian judges constituted fewer than 5% of law students in 1970 but nearly 30% of law students by 2020. Despite this, White judges and male judges are considerably overrepresented in the federal judiciary, relative to lawyers and the general public. As shown in Table 1, 83% of appellate judges serving from 2004 to 2017 were white and 74% were male.

#### [TABLE 1]

However, there are several important differences between gender and racial representation in the judiciary. First, the presence of women judges in appellate courts is more universal and longer-established than is the presence of racial and ethnic minority judges. As shown in Table 2, every appellate court had appointed at least one female judge by 1995, and a majority had done so by 1980. In contrast, a majority of appellate courts have never appointed an Asian judge, and among the six courts that have done so, only the 9<sup>th</sup> Circuit and the Federal Circuit had done so prior to 2010. Likewise, four circuit courts have had no Hispanic judges since 1960, and an additional three had had no Hispanic judges prior to 2010. While Black judges have been established in the federal court system for longer than other racial minorities, the Federal Circuit has had no Black judges and three additional circuits had had no Black judges prior to 2000. As a consequence, most appellate judges are likely to have considerably less experience working with racial minority judges, particularly Hispanic and Asian judges, than they do with female judges.

#### [TABLE 2]

Second, race and ethnicity are much more strongly associated with political party than is gender. As shown in Figure 1, 57% of female judges were appointed by Democrats, compared to 42% of male judges. This large partisan gap is much smaller, however, than the partisan gap by race. 71% of Hispanic judges, 80% of Black judges, and 100% of Asian judges were appointed by Democratic presidents, relative to only 39% of White judges. This strong partisan association of nonwhite judges may suggest that White and nonwhite judges face ideological conflicts when hearing cases more often than do male and female judges. It may also suggest that the pool of nonwhite law clerk candidates is more consistently left-leaning than is the pool of female law clerk candidates.

## [FIGURE 1]

Lastly, while female law clerks are somewhat underrepresented relative law students as a whole, Black and Hispanic Law clerks are far more dramatically underrepresented—there are 1/3 as many Black and Hispanic appellate law clerks as would be expected based on the demographics of law students. While some of this underrepresentation is a consequence of greater racial diversity at less elite law schools, this is not a dominant factor. As shown in Figure 1, Black and Hispanic law clerks are less than half as likely to receive district or appellate clerkships as are white classmates at the same law school, and Asian law clerks are more than 15% less likely to do so than are white classmates. This underrepresentation of nonwhite law clerks may stem from many sources, including differences in career priorities and differences in performance during law school by race and ethnicity. However, this underrepresentation suggests that differences in access to clerkships by race and ethnicity are much larger than those by gender.

## [FIGURE 2]

### SECTION 3: DATA DESCRIPTION

As described in Battaglini, Harris, and Patacchini (2021), we use two primary data sources for this analysis. We identify the clerks hired by each judge using data obtained from Leadership Connect™, a company that compiles directories of employees in the federal and state judiciaries. These data cover all federal law clerks who worked from 2017 to 2023. Data on clerks who worked from 2007-2017 were obtained by the *Judicial Yellow Books* in the form of pre-publication pdf masters. Data from 2018-2023 were obtained from the Leadership Connect™ online database. We use this data to determine when each clerk was hired, and by which judge, as well as to identify characteristics of law clerks. We identify each clerk's start year as the first year in which they appear in a *Judicial Yellow Book*. In addition, we observe clerks' first and last names and education histories (for 73% of clerks).

We combine this data with information on the cases heard by each judge, and thus the colleagues with which each judge heard cases, obtained from leagle.com—a public repository of all published cases heard by federal courts. These data and the construction of our sample are described in detail in Battaglini, Harris, Patacchini (2021), and are thus briefly described here. Leagle provides a searchable database of all published cases in federal courts since 1950, and provides access to the full text of the published legal opinion in each case. We pool information on the universe of published cases heard between 2004 and 2017, in total 50,813 cases. For each case, we use the case text to determine the date the case was heard, the judges hearing the case, and several other characteristics of the case and decision. We then determine the percent of interactions that each judge had with Black, Hispanic, and Asian judges by counting the number of times each judge heard a case with a Black, Hispanic, or Asian judge (respectively) and dividing by the total number of colleagues that the judge interacted with over the course of the year.

### 3.1: Identification of Clerk Race/Ethnicity:

Importantly, Leadership Connect™ do not contain information on the race or ethnicity of law clerks. As a result, we estimate each law clerk's race/ethnicity on the basis of their first name and surname. To do so, we match each clerk's surname to a list of over 150,000 surnames identified by the US Census Bureau (Comenetz 2016). For each name, the census provides the percentage of census respondents with the surname identifying as Non-Hispanic White, Hispanic, Black, and Asian/Pacific Islander. Similarly, we match each clerk's first name to a database of first names appearing on mortgage records (Tzioumis 2018). The database provides the number of individuals identifying themselves as a member of each major racial category.

We combine these two pieces of information using naive Bayesian inference, following Tzioumis (2018). This approach uses the racial distribution of a clerk's surname as a Bayesian prior. It then uses the percentage of all individuals of each race with the clerk's first name as the conditional likelihood that the clerk would have their first name, given assignment to each race. It thus calculates the posterior probability that a clerk with surname  $S$  and first name  $F$  identifies as racial category  $R$  as:



$$P(R|S, F) = \frac{P(R|S)*P(F|R)}{\sum_{R=1,4} P(R|S)*P(F|R)} \quad (1)$$

Where  $P(R|S)$  is the fraction of individuals with surname  $S$  identifying with racial group  $R$ , and  $P(F|R)$  is the fraction of individuals of racial group  $R$  with first name  $F$ . We assign individual clerks to the racial category for which  $P(R|S, F)$  is greatest.

This approach takes advantage of the fact that while the census bureau's database of commonly occurring surnames is nationally representative, publicly available data on first names is not, due to underrepresentation of Black and Hispanic individuals among mortgage applicants. The prior probabilities obtained from the census effectively include two pieces of information: the relative odds that a person of each racial group will have a surname and the relative size of each racial group in the United States. Meanwhile, the conditional probabilities obtained from mortgage data reflect only the relative odds that a person of each racial group will have a given first name in the universe of mortgage applicants.

However, there are two reasons to suspect that this process will yield biased estimates of the race/ethnicity of a federal law clerk. First, because federal law clerks are far more likely to be White than are representative individuals in the United States, a clerk who is estimated to have a 50% chance of being White is likely to actually be White at a rate well above 50%. Second, among racial and ethnic groups, names vary by socioeconomic status. In particular, highly educated Black parents are less likely to give their children distinctively Black first names (Bertrand and Mullinathan 2004). If federal law clerks are more likely than most individuals to have highly educated parents, this approach may thus underestimate the probability that individuals without distinctively Black first names are Black.

Additionally, the small sample size of mortgage applications introduces idiosyncratic error to the estimation of conditional probabilities. Because Asians are the smallest major racial/ethnic group in the United States, some uncommon first names never appear among Asians in the first name data, despite being likely to occur at near-ordinary rates in the overall Asian population. We

correct this by assigning a posterior probability of being Asian equal to the surname-based prior whenever more than 60% of the individuals with a surname are Asian.

This approach is mostly successful at replicating the racial/ethnic distribution of law clerks reported by the NALP. As shown in Figure 1, while we estimate a lower share of clerks to be Black and a somewhat higher share of clerks to be Hispanic than is reported in the NALP, our racial assignment broadly matches the NALP.

However, our racial assignments contain substantial uncertainty, especially for clerks identified as Black. As shown in Table 3, the average clerk identified in our data as Black is assigned only a 57% probability of being Black by equation 2. Meanwhile, clerks identified as White are assigned an average of a 7% probability of being Black. Because the large majority of clerks are identified as White, this implies that a majority of Black clerks in our data are likely to be misidentified as White. Our identification of Hispanic and Asian clerks is far more precise, with the probability that clerks identified as Hispanic and Asian being properly identified estimated at 73% and 84% respectively. However, it is likely that even estimates focused on Hispanic and Asian clerks are influenced by considerable measurement error. However, the measurement error will attenuate but not bias our estimates unless interaction with nonwhite judges induces white judges to prefer either nonwhite clerks with more or less typically white names.

### [TABLE 3]

As a test of our racial identification algorithm, we examine the hiring practices of White, Hispanic, Black, and Asian judges. As shown in Table 4, we find that judges of each race are considerably more likely to hire clerks of their own race than are other judges. While only 3% of clerks hired by White judges are Hispanic, 11% of clerks hired by Hispanic judges are Hispanic. Likewise, while only 2% and 7% of clerks hired by White judges are Black and Asian, respectively, 7% of clerks hired by Black judges are Black, and 19% of clerks hired by Asian judges are Asian. This finding suggests that racial assignment on the basis of first and last name is identifying some nonwhite clerks.

## [TABLE 4]

Strikingly, Table 4 provides little to no evidence that nonwhite judges are more likely to hire nonwhite clerks who are not of the judge’s race than are white judges. This finding supports our decision to examine the effect of interaction with specific nonwhite racial groups on hiring of clerks in that racial group, rather than simply examining the amount of interaction each judge had with a nonwhite judge.

### 3.2: Supplemental Data

In addition to these two primary data sources, we use several supplementary data sources. We obtain information on each judge from

## SECTION 4: EMPIRICAL STRATEGY

Our empirical strategy takes advantage of the random assignment of judges to cases within appellate courts to estimate the effect of interaction with Black, Hispanic, and Asian judges in a give hear on the likelihood of hiring at least one Black, Hispanic, or Asian judge in the following year. Because judges’ rate of interaction with each colleague is random conditional on court and year, we control for fixed effects at the court-by-year level.

Our primary research question is whether interaction with judges from marginalized or minority backgrounds influence the hiring decisions of White judges. As a result, we first perform a single estimation that combines evidence from interaction with Black, Hispanic, and Asian judges. However, because beliefs about each of these minority groups are likely to be distinct, we hypothesize that interaction with a Black judge may affect the likelihood that a White judge hires a Black clerk, but not the likelihood that they hire an Asian or Hispanic clerk. As a result, we estimate a stacked regression, where an observation represents a judge  $j$ , housed in a court  $c$ , in a year  $t$ , interacting with judges of race  $r$ :

$$Hire_{j,c,t+1,r} = \beta Inf_{j,c,t,r} + \delta X_{j,t} + \theta_{c,t,r} + \varepsilon_{j,c,t,r} \quad (2)$$

$Hire_{j,c,t,r}$  is an indicator of whether judge  $j$  hired at least one clerk of race  $r$  in year  $t+1$ ,  $Inf_{j,c,t,r}$  is the fraction of judge  $j$ 's interactions in year  $t$  with judges of race  $r$ ,  $X_{j,t}$  is a set of time-varying judge characteristics, and  $\theta_{c,t,r}$  is a set of court by year by race group fixed-effects. In this framework, each judge's hiring decisions in a year enter as three separate observations, representing interaction with and hiring of Black, Hispanic, and Asian judges and clerks. To account for this, we cluster standard errors at the judge-by-year level. We restrict our sample to White judges.

#### 4.1: Evidence on Validity of Empirical Strategy

This strategy rests on the identifying assumption that variation in the racial composition of co-panelists within a particular circuit and year is unrelated to a judge's preferences for nonwhite clerks and to the judge's available labor pool. This assumption is justified by the fact that all appellate courts assign cases in a manner intended to be random and understood by participants to be random (Stearns M. & Abramowicz, 2005). While recent work has identified some violations of pure randomness, these violations are small, unlikely to be sustained over a year, and restricted to a few courts. In particular, work by Chilton & Levy (2015) finds that due to scheduling conflicts, rules around the use of senior and visiting judges and similar concerns, the assignment of judges to appellate panels deviates from random assignment in several courts. As a consequence, the distribution of Republican appointees across cases differs slightly from what would be expected by chance in the Second, Sixth and DC circuits, and more substantially in the Ninth Circuit. However, the likelihood that a Republican will serve with another Republican differs from chance by less than a percentage point in all circuits but the Second and Ninth, in which it differs from chance by less than two percentage points. Levy (2017) examines a broader range of potentially non-random scheduling decisions made by the chief justice's office of each appellate circuit, finding, for instance, that one circuit had a tradition of ensuring that judges have the opportunity to be the presiding judge on one case in their first year by constructing a panel with two senior or visiting judges. However, these deviations from strict randomness are small enough that federal judges themselves believe panels to be randomly constructed (Levy, 2017).

We test the threat of nonrandom case assignment to identification by regressing our main independent variable, the fraction of a judge's co-panelists who are of nonwhite race  $r$  in each year, onto a series of observed judge characteristics: the judge's gender, years of experience, age, political party, the ideology of their nominating president, and the fraction of their current staff that are nonwhite, controlling for judge race and for court by year by racial category  $r$  fixed effects.

Table 5 shows the relationship between a variety of judge characteristics and the main variable of interest, for both the full sample (columns 1 and 2) and separately for white and nonwhite judges (columns 3 and 4). This test presents some concern that interaction with nonwhite judges are non-random. In particular, we find that older and more experienced white judges interact more often with nonwhite judges than would be expected from random chance, as do more conservative judges. We find no evidence that any other judge characteristics—particularly judge partisanship and the share of a judge's clerks who are nonwhite—have any relationship to a judge's interactions with nonwhite colleagues. These relationships are small—we estimate that a 30-year age difference between judges is associated with a 0.2 percentage-point difference in the rate of interactions with non-white judges. Likewise, a shift from the most liberal possible ideology ranking of -1 to the most conservative ranking of +1 is associated with a 0.74 percentage-point increase in the share of cases heard with non-white judges.

#### [TABLE 5]

There are a few possible interpretations of this result. First, the association between judge age and experience and interactions with nonwhite colleagues may be due to chance. Because we test the relationship between interactions with nonwhite colleagues and six judge characteristics, we perform a test of joint significance. This test indicates that deviations as large as those we found would occur by chance in 6% of cases. However, the associations between the characteristics of non-white judges and their likelihood of hearing cases with non-white colleagues makes this unlikely.

Second, this association may be due to practices in the assignment of cases to judges that violate random assignment. Levy (2017) focuses on three sources of nonrandom assignment: timing of vacations, construction of panels designed to give junior judges an opportunity to preside, and

potential efforts to generate even partisan balance on panels. The first concern is that judges have discretion to schedule their vacation time. As a consequence, judges who take vacations at the same time of year are likely to hear more cases together than do judges who take vacations at different times. This may be a particular concern for senior judges, who hear less than a full case load and may take extensive vacation time. In order for this to produce the results shown in Table 2, older and more experienced White judges would need to schedule vacations in a more similar fashion to nonwhite judges than do younger and less experienced White judges.

The second concern is that some courts have practices to ensure that first-year judges preside over at least one panel as chief judge (a limited role that allows a judge to assign the writing of a decision to a member of the panel, so long as the chief judge is in the majority). Because the chief judge is the most senior full-time judge on a panel, first-year judges can only serve as chief when on a panel with part-time senior judges and visiting judges. As a result, some courts select a single panel for each first-year judge where co-panelists are selected only from senior and visiting judges. This practice would explain the results of Table 2: because nonwhite judges were more likely to begin service during our sample period, a disproportionate share of first-year judges are nonwhite. However, the practice is unlikely to result in bias to our results because co-panelists in these special panels are selected at random from senior judges. If this practice does result in bias, the bias should be reduced by the introduction of judge fixed-effects and controls for judge age and experience. As we will show in Table 6, the introduction of these controls has no effect on our estimates.

The final possibility is that panels are constructed to have a mix of Democrat and Republican appointees at a higher rate than would occur by chance, as indicated by Chilton and Levy (2015). This is unlikely to explain the findings of Table 5, however, because we find a very small, statistically insignificant negative relationship between appointment by a republican judge and service with nonwhite co-panelists. Because the large majority of nonwhite judges were appointed by Democrats, practices that maintain partisan balance would place Republican appointees with nonwhite colleagues at a rate greater than expected by chance.

## RESULTS

Table 6 shows the ordinary least squares estimates of equation 2, in which the dependent variable is an indicator of whether a judge hired a clerk of race  $r$  in year  $t+1$  and the key independent variable is the fraction of the judge's co-panelists who were of race  $r$  in year  $t$ . Column 1 includes court by year by race  $r$  fixed effects, with no additional covariates. Column 2 adds controls for judge gender, a quadratic of age, the political party of the judge's nominating president, a quadratic of the DW-Nominate score of the judge's nominating president, and a quadratic of the judge's years of experience on their current court. Column 3 adds judge fixed effects. Column 4 controls for the number of clerks hired by the judge in year  $t+1$  while column 5 controls for the fraction of a judge's staff that is white in year  $t$ . Because the addition of this control excludes judges in years where they have no existing staff, we consider column 4 to be our main specification. Consistent with our identification strategy, differences in these specifications are no larger than would be expected by chance.

Our estimates suggest that interacting with nonwhite judges has either a small effect or no effect on the likelihood that white judges will hire nonwhite clerks. Column 4 shows that a one standard-deviation increase in a male judge's exposure to colleagues of nonwhite race  $r$ , or an increase of 0.065 in the fraction of judicial interactions with colleagues of race  $r$ , leads to a 0.2 percentage-point decrease in the likelihood that a judge hires a clerk of race  $r$ . This estimate has a standard error of 0.09, allowing us to rule out point estimates larger than 0.2.

We next disaggregate this finding by race. We do this by splitting our sample in equation 2 by  $r$ , so that each regression represents a judge at time  $t$ . We thus examine three sets of regressions: regressions of hiring at least one Black clerk on the fraction of interactions with Black judicial colleagues, of hiring at least one Hispanic clerk on the fraction of interactions with Hispanic judicial colleagues, and of hiring at least one Asian clerk on the fraction of interactions with Asian judicial colleagues. The results of these regressions are presented in Table 7.

[TABLE 7]

As shown in Table 7, we find a small and statistically insignificant relationship between interaction with judges of each nonwhite racial category and the hiring of clerks of that racial category. Our point estimates suggest a small negative effect of interacting with Hispanic judges on the hiring of Hispanic clerks, no effect of interacting with Black judges on the hiring of Black clerks, and a small positive effect of interacting with Asian judges on the hiring of Asian clerks. Note that our point estimates for Asian judges are very imprecisely estimated, due to the fact that all but two courts had no non-visiting Asian judges for a majority of years in the sample.

While all of these estimated effects are small and statistically indistinguishable from each other, these differences allow for some speculation on the different positions of Black, Hispanic, and Asian judges and clerks. As in Table 2, Black judges have had been present in most Appellate courts for much longer than have Hispanic or Asian judges. Thus, White judges' opinions of their Black colleagues, and of the status of Black lawyers in the profession, may be more firmly established than is their opinion of Hispanic or Asian colleagues. Meanwhile, Asian students are far less underrepresented in law schools than are Black or Hispanic students, particularly at high-ranking law students. As a consequence, judges' decision to hire Asian law clerks may be less constrained by the availability of highly qualified applicants than is their decision to hire Black or Hispanic clerks. Similar negative relationships between interaction and hiring for these three racial groups thus suggest that our results are unlikely to be the product of contingent institutional circumstances.

## SECTION 5: EXPLANATIONS FOR A LACK OF EFFECT

We find no evidence that professional exposure to nonwhite colleagues increases the likelihood that white judges hire nonwhite clerks. This finding presents a striking contrast to the findings of Battaglini, Harris, and Patacchini (2021), where we found strong positive effects of interacting with female colleagues on the hiring of women. We thus present three hypotheses about why race and gender operate so differently in this context.

A first hypothesis is that the supply of highly-qualified non-white candidates is small relative to the supply of highly-qualified female candidates. Were this the case, small changes in judges'



assessed quality of non-white candidates would have small effects on their hiring decisions because few non-white candidates would be on the hiring margin. Evidence for this hypothesis is mixed. As shown in Figure 1, nonwhite law students—especially Black and Hispanic law students—are much less likely to receive federal clerkships than are their white law school classmates. This suggests that judges would not need to hire from unfamiliar institutions, on the recommendation of unfamiliar professors, in order to diversify their pool of law clerks. However, the diversity of law school classes may be greater than the diversity of available and qualified candidates for clerkship. Because federal clerkships pay far less than do top private-sector law firms, accepting a clerkship requires considerable financial sacrifice. Hispanic students graduate with 50% more debt than White students, on average, while Black students graduate with 100% more debt (American Bar Association, 2020), so this financial sacrifice may be a larger deterrent to pursuing a clerkship for nonwhite students. In addition, White students may be more likely than nonwhite classmates to receive top grades or receive recommendations for professors.

As a consequence, it is instructive to compare the racial and gender representation of appellate court clerks to that of district court clerks. District court clerkships involve similar financial sacrifices as appellate court clerkships, provide similar training and credentials, and are highly selective (though less selective than appellate court clerkships). As a consequence, district court clerks may be a reasonable proxy for the pool of qualified candidates for appellate clerkships who were not selected. As shown in Figure 1, women make up 42% of appellate court clerks but 59% of district court clerks, suggesting that women are far less likely to receive appellate clerkships than men among students who accept federal clerkships. In contrast, the racial makeup of district and appellate court clerks is very similar. This finding lends support to the idea that judges may be passing over a larger number of qualified women than qualified racial and ethnic minority students, and thus may find it easier to hire additional women when their perceptions of women change.

A second possibility is that, even if many non-white candidates are available with sufficient legal qualifications, there are few nonwhite law clerks who are sufficiently conservative to be considered for clerkships by most judges. As shown in Figure 2, a large majority of nonwhite judges

were appointed by Democratic presidents. If Republican appointees are unable to find nonwhite law clerks who share their judicial philosophy, they may be unlikely to hire nonwhite clerks regardless of their experiences with nonwhite colleagues.

We investigate this possibility in two ways. First, we restrict our sample only to White Democrats. As shown in Table 8, we find no effect of interacting with nonwhite colleagues on the hiring of nonwhite clerks by white Democrats, with a point estimate very similar to the estimate for the full sample. This finding suggests that if differences in judicial philosophy between nonwhite clerks and federal judges limit the diversity of potential candidates for clerkship, these differences must divide nonwhite law clerks from Democrat-appointed judges as well as Republican-appointed judges.

#### **[TABLE 8]**

We examine this possibility by investigating the relationship between race and political ideology among law clerks using political donations as a proxy for ideology. The Database on Ideology, Money in Politics, and Elections (DIME, Bonica 2016) contains information on all political contributions made by individuals in the United States from 1979 – 2014. Bonica (2016) computes an estimated ideology score for each donor by taking the average ideology of donation recipients, measured using the CF Score described in Bonica (2014). Following Bonica et al (2017), we match political donors to law clerks using first, last, and middle name. When multiple donors share the name of a law clerk, we match the law clerk to donors whose occupation was listed as a legal professional when they most recently donated. In the 5% of cases where an individual matched to two or more donors in the legal profession, we estimate their ideology as the unweighted average of the ideologies of matching donors.

Using this approach, we find that Asian and Hispanic law clerks are considerably more left-wing than are white law clerks, even among clerks working for Democrat-appointed judges. As shown in Figure 3, among clerks working for Democrat-appointed judges, Asian and Hispanic clerks are 0.2 points to the left of White and Black clerks, on a scale that ranges from -2 (most liberal) to

+2 (most conservative). This difference is as large as that between White clerks working for Democrat-appointed judges and White clerks working for Republican-appointed judges. Meanwhile, we find no difference in measured ideology between White and Black clerks. This is unlikely to mean that Black clerks do not have large, substantive disagreements with white clerks and judges on average, however—while Black Democrats are less likely to identify as “liberal” than are White Democrats, they are more likely to support economic redistribution and more likely to prioritize racial injustice (Dunn 2020, Griffin and Newman 2019).

### [FIGURE 3]

This finding leads to a final possibility: interactions between white and non-white judges may increase the salience of ideological differences between whites and non-whites in the legal profession. In this case, positive effects of interracial interaction on the perceived competence of non-white clerks may be counterbalanced by negative effects on the perceived ideological disposition of non-white clerks.

Concerns about the ideologies of law clerks may play a large role in the hiring decisions of judges because Appellate clerkships are a key source of training for future judges. Because the federal judiciary plays a key role in the interpretation of law and thus the shaping of American society, current judges may be reluctant to provide access to the judiciary to people or groups who they perceive as ideological adversaries. Because race plays a large role in current controversies within the legal profession, with critical legal theory (an intellectual movement that emerged from legal scholarship) being the most prominent example (Carbado and Roithmayr 2014), there are few clear identity markers that provide as salient a signal of a job candidate’s position on racially controversial issues than the candidate’s race. As a result, as hypothesized by Blumer (1958), interaction with non-white colleagues may strengthen the desire of white judges to maintain white dominance and control over the judiciary.

## SECTION 6: FUTURE WORK

Further development of this project will focus on estimating the role of racial controversy in judicial hiring directly. We will address this issue using the rich information available in judicial opinions, which can be used to identify legal cases centered on racially controversial issues like immigration, civil rights, and policing. Using this information, we plan to compare the effect of hearing cases on racially controversial cases alongside non-white colleagues on the effect of hearing cases without explicit racial content. We hypothesize that all cases will teach white judges about the competence of their non-white colleagues, and thus may affect attitudes about the likely competence of nonwhite colleagues. However, cases on racially polarized topics, such as immigration, police brutality, civil rights, and affirmative action, will also teach white judges about the ideologies of their non-white colleagues. If white judges avoid hiring non-white clerks when ideological differences with their non-white colleagues are made more salient, we would thus expect to see negative effects of interacting with non-white colleagues on racially charged cases, but positive effects on racially neutral cases.

This analysis will proceed in several steps. First, we identify the racial content of cases by identifying key words used in the text of judicial opinions. We validate these keywords by manually classifying a large number of randomly selected cases based on case content—our preliminary work indicates that type I and type II error are both lower than 5%. Next, we will verify that these cases are racially polarizing by examining the rate at which nonwhite judges dissent on these cases. If these cases are indeed racially polarizing, we expect to see a higher rate of dissent among nonwhite judges on cases classified as racially polarizing. Finally, we will calculate the share of judicial interactions for each judge in each year on polarizing cases and on non-polarizing cases. We will then estimate the following regression equation, for judge  $j$  in court  $c$  in year  $t$  hiring clerks of race  $r$ :

$$Hire_{j,c,t+1,r} = \beta_1 InfP_{j,c,t,r} + B_2 InfNP_{j,c,t,r} + \delta X_{j,t} + \theta_{c,t,r} + \varepsilon_{j,c,t,r} \quad (2)$$

Here  $Hire_{j,c,t+1,r}$  is an indicator of whether judge  $j$  hired at least one clerk of race  $r$  in year  $t+1$ ,  $InfP_{j,c,t,r}$  is the fraction of judge  $j$ 's co-panelists on racially polarizing cases in year  $t$  were of race  $r$ ,  $InfNP_{j,c,t,r}$  is the fraction of judge  $j$ 's co-panelists on non-racially polarizing cases in year  $t$  were of race  $r$ ,  $X_{j,t}$  is a set of controls for judge  $j$ 's characteristics at time  $t$ , and  $\theta_{c,t,r}$  is a set of court-by-year-by-race fixed-effects.

## REFERENCES

- Abramovitz, M., & Smith, R. J. (2021). The Persistence of Residential Segregation by Race, 1940 to 2010: The Role of Federal Housing Policy. *Families in Society*, 102(1), 5–32. <https://doi.org/10.1177/1044389420923469>
- Allport, G. (1954). *The Nature of Prejudice*. Cambridge, Mass: Perseus Books.
- Becker, G (1971). *The Economics of Discrimination*. The University of Chicago Press, London.
- American Bar Association (2020). “American Bar Association Profile of the Legal Profession, 2020” <https://www.americanbar.org/content/dam/aba/administrative/news/2020/07/potlp2020.pdf>
- Bagues, Manuel and Esteve-Volart, Berta. 2010. "Can Gender Parity Break the Glass Ceiling? Evidence from a Repeated Randomized Experiment. " *Review of Economic Studies*, 2010, Vol. 77(4), 1301-1328
- Battaglini, Marco & Harris, Jorgen & Patacchini, Eleonora. (2022). Interactions with Powerful Female Colleagues Promote Diversity in Hiring. *Journal of Labor Economics*. 10.1086/720392.
- Bertrand, Marianne, and Sendhil Mullainathan (2004). "Are Emily and Greg More Employable Than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination." *American Economic Review*, 94 (4): 991-1013.
- Blumer, Herbert “Race Prejudice as a Sense of Group Position” *The Pacific Sociological Review* 1:1 Spring 1958.
- Boisjoly, J., Duncan G., J., Kremer, M., Levy D., M., & Eccles, J. (2006). Empathy or Antipathy? The Impact of Diversity. *American Economic Review*, 96, 1890–1905.
- Bonica, Adam. 2014. Mapping the Ideological Marketplace. *American Journal of Political Science*, 58: 367-386. <https://doi.org/10.1111/ajps.12062>
- Bonica, Adam & Chilton, Adam S. & Goldin, Jacob & Rozema, Kyle & Sen, Maya. 2017. The Political Ideologies of Law Clerks, *American Law and Economics Review*, Volume 19, Issue 1, Pages 96–128, <https://doi.org/10.1093/aler/ahw012>
- Bonica, Adam. 2016. Database on Ideology, Money in Politics, and Elections: Public version 2.0 [Computer file]. Stanford, CA: Stanford University Libraries. <<https://data.stanford.edu/dime>>
- Carbado, D. W., & Roithmayr, D. (2014). Critical race theory meets social science. *Annual Review of Law and Social Science*, 10, 149-167.
- Charles, K. K., & Guryan, J. (2008). Prejudice and Wages: An Empirical Assessment of Becker’s *The Economics of Discrimination*. *Journal of Political Economy*, 116(5), 773–809. <https://doi.org/10.1086/593073>

- Chilton A., S., & Levy, M. K. (2015). Challenging the Randomness of Panel Assignment in the Federal Courts of Appeals. In Duke Law School Public Law and Legal Theory Series No. 2015-1; U of Chicago, Public Law Working Paper No. doi:10.2139/ssrn.2520980
- Derencourt, Ellora & Kim, Chi Hyun & Kuhn, Moritz & Schularick, Moritz (2022). "Wealth of Two Nations: The U.S. Racial Wealth Gap, 1860-2020." Working Paper.
- Mousa, S. (2020). Building social cohesion between Christians and Muslims through soccer in post-ISIS Iraq. *Science*, 866-870. doi:10.1126/science.abb3153
- Leadership Directories, inc. (2007-2017). *Judicial Yellow Book: Who's Who in Federal and State Courts*. New York, N.Y: Leadership Directories, Inc.
- Leagle. (2019). Retrieved from <http://www.leagle.com/>.
- Levy, M. K. (2017). Panel Assignment in the Federal Courts of Appeals. *103 Cornell Law Review*, 65–116.
- Lowe, M. (2021). Types of Contact: A Field Experiment on Collaborative and Adversarial Caste Integration. *American Economic Review*, 1807-1844. doi:10.1257/aer.20191780
- Paluck, E. L., Green, S. A., & Green, D. (2018). The Contact Hypothesis Re-evaluated. *Behavioural Public Policy*, 3, 129–158. doi:10.1017/bpp.2018.25.
- Tropp, L. R., & Pettigrew, T. F. (2005). Relationships Between Intergroup Contact and Prejudice Among Minority and Majority Status Groups. *Psychological Science*, 16(12), 951–957. <https://doi.org/10.1111/j.1467-9280.2005.01643.x>
- Tzioumis, K. (2018). "Demographic aspects of first names." *Sci Data* 5, 180025. <https://doi.org/10.1038/sdata.2018.25>
- Rhinehart, L. K. (1994). Is There Gender Bias in the Judicial Law Clerk Selection Process. *Georgetown Law Journal*, 575-603.
- Stearns M., L., & Abramowicz, M. (2005). *Defining Dicta*. Faculty Scholarship, 119. Retrieved from [https://digitalcommons.law.umaryland.edu/fac\\_pubs/119](https://digitalcommons.law.umaryland.edu/fac_pubs/119)

## TABLES

Table 1: Racial and Gender Diversity in Judiciary

	% of clerks (NALP) (2007-2013)	% of clerks (Our Data) (2007-2017)	% of Law Graduates (2020)	% of Appellate judges, (2004-2014)
White	85%	86%	70%	83%
Hispanic	3%	4%	14%	6%
Black	5%	3%	9%	9%
Asian	7%	7%	7%	1%
Female	43%		54%	26%

Notes: Column 1 reports the racial and gender diversity of law clerks hired between 2007 and 2013, as reported by the NALP. Column 2 reports the racial and gender diversity of first-year law school students in 2020, as reported by the NALP. Column 3 reports the race and gender diversity of judges active between 2004 and 2014, according to the biographical directory of Article III judges and case data collected by the authors from the leagle.com database.

<https://www.nalp.org/0914research>

[https://www.nalp.org/uploads/2020\\_NALP\\_Diversity\\_Report.pdf](https://www.nalp.org/uploads/2020_NALP_Diversity_Report.pdf)

<https://www.fjc.gov/history/judges/biographical-directory-article-iii-federal-judges-export>



Table 2: Year that Appellate Circuits Appointed  
First Racial Minority and Female Judge (since 1960)

Circuit Court	First Female Judge	First Hispanic Judge	First Black Judge	First Asian Judge
First Circuit	1995	1984	2010	
Second Circuit	1979	1994	1962	2010
Third Circuit	1979	2000	1977	
Fourth Circuit	1992	2010	2001	
Fifth Circuit	1979	1991	1979	2018
Sixth Circuit	1979		1966	2017
Seventh Circuit	1992		1999	
Eighth Circuit	1994		1978	
Ninth Circuit	1968	1979	1979	1971
Tenth Circuit	1979	1995	2006	
Eleventh Circuit	1981	2012	1981	
D.C. Circuit	1979		1966	2013
Federal Circuit	1982	2011		1982

*Notes:* This table reports the earliest year of appointment of racial minority and female judges to each federal appellate court since 1960. Data are from the Biographical Directory of Article III Judges.

**Table 3: Precision of Racial Assignment by First Name and Surname**

Assigned Race	Prob. White	Prob. Hispanic	Prob. Black	Prob. Asian	# Clerks
White	<b>88%</b>	2%	7%	2%	4183
Hispanic	14%	<b>73%</b>	6%	7%	197
Black	30%	7%	<b>57%</b>	6%	164
Asian	11%	2%	3%	<b>84%</b>	433

Notes: This table gives the average probability that a clerk is of race "X", as calculated by equation 1 in the text, among clerks assigned to each race. As described in the text, clerks are assigned to the racial category for which their calculated probability of membership is highest.

Table 4: Racial Distribution of Clerks by Judge Race

Judge Race	% White	% Hispanic	% Black	% Asian	# Hiring Decisions
White	<b>88%</b>	3%	2%	7%	1111
Hispanic	80%	<b>11%</b>	4%	5%	85
Black	79%	4%	<b>7%</b>	10%	126
Asian	70%	12%	0%	<b>19%</b>	17

Notes: This table presents the fraction of clerks hired by judges of each racial category identified to belong to each racial category on the basis of first and surname, as described in equation 1.

Table 5: Balance Tests for Random Assignment to Panels

Dependent variable: % co-panelists who are female	(1)	(2)	(3)	(4)
Female	0.0079*** (0.0024)	0.0006* (0.0003)	0.0018 (0.0018)	-0.0048 (0.0083)
Age	0.0006 (0.0004)	0.0006 (0.0004)	0.0006* (0.0003)	0.0039** (0.0016)
Years on current court	0.0005 (0.0004)	-0.0044** (0.0019)	0.0006* (0.0003)	0.0055 (0.0033)
Ideology score	-0.007*** (0.0024)	-0.0022 (0.0016)	-0.0037* (0.0019)	-0.0043 (0.0058)
Republican	-0.0099*** (0.0021)	0.0009 (0.0046)	-0.0023 (0.0017)	-0.0011 (0.0054)
% of current staff female	-0.0049 (0.0065)	-0.0001 (0.0018)	0.0058 (0.0046)	-0.0171 (0.0164)
Court by year fixed effects	No	Yes	Yes	Yes
Sample	All	All	White	Nonwhite
F-Stat (P-val)	8.7358*** (0)	2.8868*** (0.0082)	2.00* (0.0633)	4.0725*** (0.0006)
Observations	5595	5595	4248	1017

*Notes:* The table reports stacked OLS estimation results from regressions of the fraction of co-panelists who were of race "X" in a year on a series of judge characteristics. Standard errors are robust and clustered at the judge level. Column (2) controls for whether the judge is female. Columns (2)-(4) include court by year fixed effects. Column (3) shows regression results for male judges, column (4) shows regression results for female judges. Significance levels are: \* 10%, \*\* 5%, \*\*\* 1%. *Source:* Judicial yellow books, case dataset collected by authors (see data section for details).

Table 6: Effect of Serving with Nonwhite Judges on Hiring Decisions

Dep Var: Probability of hiring any clerk of race "X" in next year	(1)	(2)	(3)	(4)	(5)
Fraction of co-panelists who are race "X"	0.0351 (0.0940)	-0.0015 (0.0888)	-0.0274 (0.0957)	-0.0318 (0.0949)	-0.1283 (0.0913)
Court by year fixed effects	Yes	Yes	Yes	Yes	Yes
Judge Characteristics		Yes			
Judge Fixed Effects			Yes	Yes	Yes
Number of clerks hired				Yes	Yes
% of current staff female					Yes
Observations	4578	4578	4578	4578	4578
Dependent variable mean	0.10965	0.10965	0.10965	0.10965	0.10965

*Notes:* This table reports OLS estimation results from the stacked OLS regressions described in equation (2) in the text. Standard errors are robust and clustered at the judge-by-year level. The dependent variable is an indicator of whether a judge hired at least one clerk of race "X", conditional on hiring any clerk. The table reports the results of regressions of the dependent variable on the fraction of co-panelists who were of race "X" in each year. Significance levels are: \* 10%, \*\* 5%, \*\*\* 1%. *Source:* Judicial yellow books, case dataset collected by authors (see data section).

Table 7: Effect of Interaction on Hiring by Race

Dep Var: Probability of hiring any Hispanic clerk in next year	(1)	(2)	(3)	(4)	(5)
Fraction of co-panelists who are Hispanic	0.0521 (0.0766)	-0.1510 (0.1282)	-0.1258 (0.1500)	-0.1266 (0.1499)	-0.1211 (0.1718)
Fraction of co-panelists who are Black	-0.0274 (0.0718)	0.0162 (0.0804)	0.0357 (0.0859)	0.0356 (0.0859)	0.0139 (0.0963)
Fraction of co-panelists who are Asian	0.2884 (0.2471)	0.0937 (0.3553)	0.1704 (0.3504)	0.1330 (0.3465)	-0.4314 (0.4571)
Court by year fixed effects	Yes	Yes	Yes	Yes	Yes
Judge Characteristics		Yes			
Judge Fixed Effects			Yes	Yes	Yes
Number of clerks hired				Yes	Yes
% of current staff white					Yes
Observations	1526	1526	1526	1526	1334

Table 8: Effect of Serving with Nonwhite Judges on Hiring Decisions:  
Democrats Only

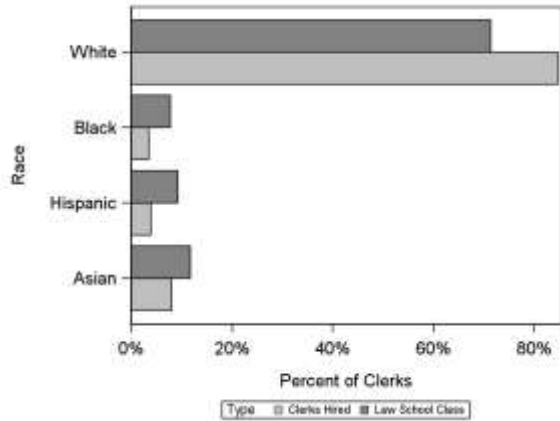
Dep Var: Probability of hiring any clerk of race "X" in next year	(1)	(2)	(3)	(4)	(5)
Fraction of co-panelists who are race "X"	0.0733 (0.1914)	0.0001 (0.1882)	0.0043 (0.1988)	0.0024 (0.1972)	-0.2095 (0.2093)
Court by year fixed effects	Yes	Yes	Yes	Yes	Yes
Judge Characteristics		Yes			
Judge Fixed Effects			Yes	Yes	Yes
Number of clerks hired				Yes	Yes
% of current staff female					Yes
Observations	1815	1815	1815	1815	1815
Dependent variable mean	0.13003	0.13003	0.13003	0.13003	0.13003

*Notes:* This table reports OLS estimation results from the stacked OLS regressions described in equation (2) in the text. Standard errors are robust and clustered at the judge-by-year level. The dependent variable is an indicator of whether a judge hired at least one clerk of race "X", conditional on hiring any clerk. The table reports the results of regressions of the dependent variable on the fraction of co-panelists who were of race "X" in each year. Significance levels are: \* 10%, \*\* 5%, \*\*\* 1%. *Source:* Judicial yellow books, case dataset collected by authors (see data section).

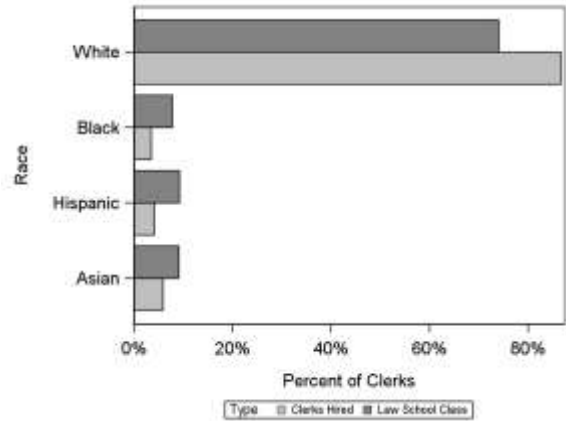
# FIGURES

Figure 1: Actual Race and Gender Distribution of Law Clerks vs Distribution of Graduates from Same Law Schools

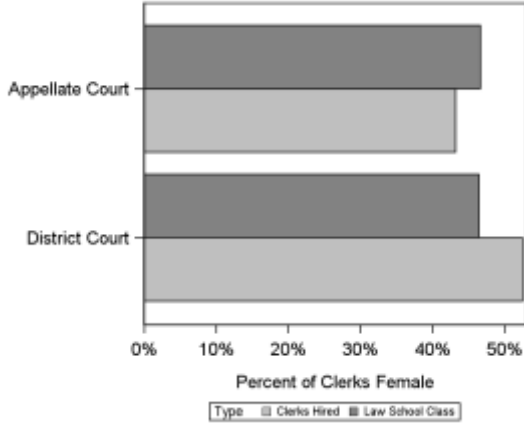
Panel A: Appellate Clerks



Panel B: District Clerks



Panel C: Gender, Appellate and District

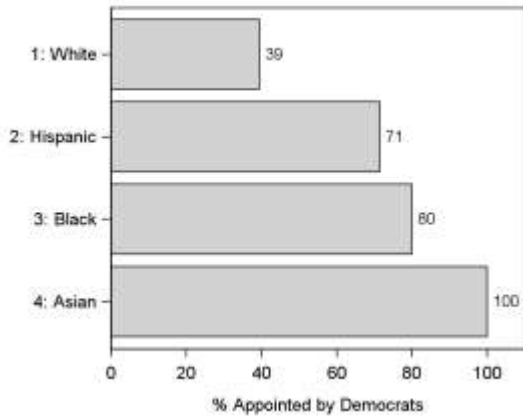


Notes: This figure compares the actual racial and gender distribution of law clerks to the racial and gender distribution were clerks selected randomly from the actual law programs from which each clerk graduated. This figure is restricted to the 73% of clerks for whom law school information was provided in the *Judicial Yellow Books*. Demographics of law school classes were obtained from the American Bar Association.

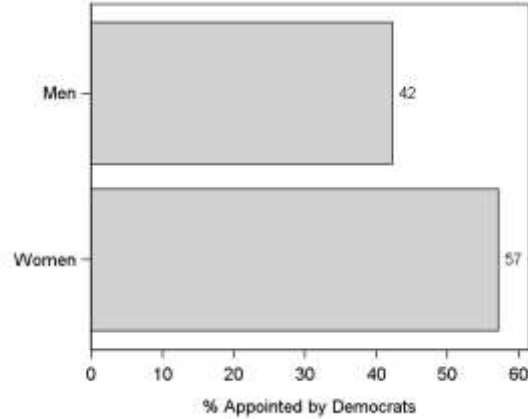


Figure 2: Partisan Affiliation of Appointing President by Race and Gender

Panel A: Race

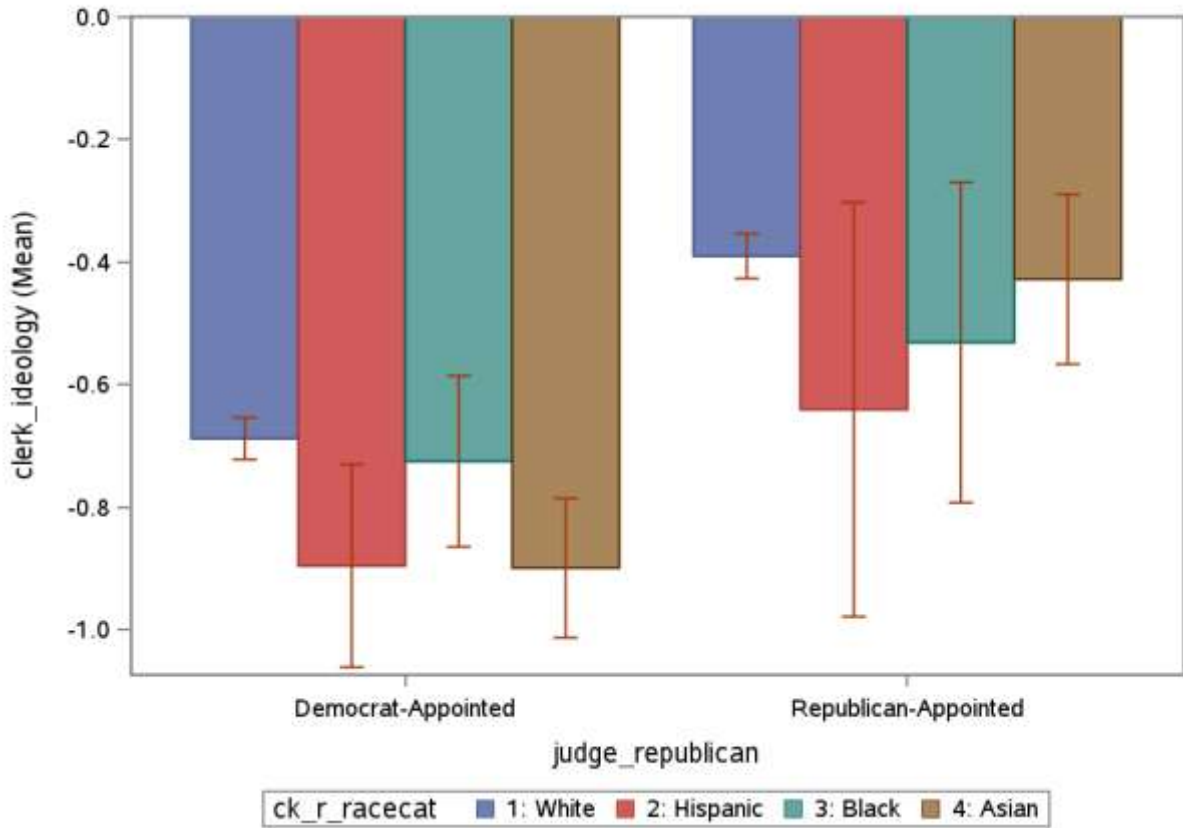


Panel B: Gender



Notes: This figure shows the percentage of judges hearing cases between 2004 and 2014 who were appointed by democratic presidents. Panel A shows party affiliation by race, while panel B shows party affiliation by gender. Race, gender, and presidential party affiliation are obtained from the biographical directory of Article III judges.

Figure 3: Ideologies of Law Clerks by Race and Partisan Affiliation of Judge



Notes: This figure shows the average ideology of judicial law clerks by race and partisan affiliation of appointing judge (measured by examining the CF Scores of politicians receiving donations from the law clerk). Error bars represent standard errors.