Asymmetric Peer Effects at Work: How White Coworkers Shape the Careers of "People of Color" *

Elizabeth Linos † Sanaz Mobasseri, ‡ Nina Roussille §

July 25, 2023

Abstract

Retaining a diverse workforce is a persistent problem in elite firms. This paper investigates how cross-race coworker interactions differentially influence retention and promotion rates for Black, Asian, and Hispanic employees. Studying 11,776 newly hired employees in a professional services firm, we first document a large Black-White turnover and promotion gap: Black employees are 7.6 percentage points (36.0%) more likely to turn over within two years of their hire and 16.5 percentage points (24.4%) less likely to be promoted on time than their White counterparts. Drawing on conditional random assignment of new hires to initial project teams, we then show that a one standard deviation (12.7%) increase in the share of White coworkers increases Black new hires' turnover by 6.2 percentage points and reduces promotion by 4.7 percentage points. These effects are asymmetric in important ways: White employees are the only racial group that negatively impacts turnover and promotion for Black new hires; and neither White, Asian, nor Hispanic employees' careers are shaped by the demographic composition of their respective coworkers. This study shows that a one-size-fits-all approach to understanding intra-organizational inequalities for Black, Asian, and Hispanic men and women may obscure heterogeneous patterns of experiences and render those experiences invisible.

*The authors thank Athina Valioulis, Obinna Igbokwe, Zoey Li, Jasmine Graves, Hannah McKinney, Gabriela Deschamps Ochoa and Grace Huang for their excellent research assistance, as well as seminar participants at the University of California, Berkeley; Harvard University; McGill University; the Wharton School of Management; Northeastern University; and ESMT for many helpful comments. The authors gratefully acknowledge the financial support of the Center for Equity, Gender, and Leadership at UC Berkeley-Haas, Boston University's Center for Antiracist Research, and the Hub for Equal Representation at the LSE. The usual disclaimer applies.

†Harvard Kennedy School, elizabeth_linos@hks.harvard.edu

‡Boston University, sanazm@bu.edu

§MIT, nroussil@mit.edu

1. Introduction

The underrepresentation of peoples of color in high-wage jobs, especially in leadership positions, remains a significant problem (Bell Smith and Nkomo 2003; Tomaskovic-Devey and Avent-Holt 2019; Hancock et al. 2021). To address such organizational inequalities, researchers and practitioners have focused on "pipeline" interventions, such as debiasing recruitment and hiring practices, or initiatives to diversify the applicant pool (Goldin and Rouse 2000; Behaghel et al. 2015; Bohnet et al. 2016; Agan and Starr 2018; Abraham and Burbano 2021; Castilla and Rho 2021; Chang et al. 2020; Exley and Kessler 2022). Comparatively less scholarly attention has been paid to measuring the impact of within-firm work practices on retention and promotion. Yet the demographic composition of a firm's workforce depends both on who enters the firm as well as who stays and is promoted (Sørensen 2004).

In this paper, we focus on understanding how employees' retention and promotion prospects are shaped by organizational demography. Specifically, we study the impact of coworkers' racial composition on employees' retention and promotion rates in an elite, knowledge intensive firm, where coworkers impact not only socialization but also success within the firm (Sherer 1995; Anderson-Gough et al. 2000; Davenport et al. 2002; Cross and Parker 2004). Past studies often characterize coworkers along one dimension—for example, as either dissimilar or similar—and report average effects of dissimilar coworkers for all employees (Tsui and O'Reilly 1989; Elvira and Cohen 2001; Zatzick et al. 2003; Giuliano et al. 2011; McGinn and Milkman 2013; Glover et al. 2017). We extend this research by asking: Do all employees experience the same effects of dissimilar coworkers, or is there heterogeneity in these peer effects?

To answer this question, we study the careers of 11,776 new hires over a seven-year period (2014-2020) in a professional services firm with more than 50,000 employees. For all employees, we accessed demographic information, such as age, education, and self-reported sex, race, and ethnicity; turnover and promotion; as well as records of their office assignment, all the projects they worked on, for how long, and—importantly for this study—with whom.

We first document large heterogeneities in retention and promotion by race, even after controlling for office and individual characteristics: While 21.1% of White employees leave the firm within a two year "up-or-out" window of their hire, the equivalent turnover rate for Black employees is 36.0% higher, at 28.7%[1]. Similarly, while 67.6% of White employees are promoted "on time" (i.e.,

[1] We capitalize the words "Black" and "White" throughout this article. Capitalizing "Black" gives necessary weight to an identity that has been pressed upon people of African descent and involves much more than color. Capitalizing "White" affirms the racialization of a group and further removes the signaling (via lowercase "w") of Whiteness as

within two-and-a-half years on the job), that share is 51.1% (24.4% lower) for Black employees. To be sure, whether or not turnover or promotion is desirable for any given employee is a-priori not obvious (Sterling 2022). However, these aggregate differences by race so early in career trajectories lend themselves to a deeper exploration of different experiences within the firm, especially by organizational leaders.

What causes these differential turnover and promotion rates? We focus on one potential mechanism: employees' coworkers. Specifically, we measure how the race of an employee's coworkers in the first few months of employment impacts turnover and promotion for Black, Asian, and Hispanic women and men. We focus on coworker effects early in one's career for both substantive and methodological reasons. Substantively, one's early work experiences are particularly important in determining one's career outcomes, as these initial experiences can have imprinting effects that persist over time (Briscoe and Kellogg 2011; Marquis and Tilcsik 2013; Tilcsik 2014; Rothstein 2021). Methodologically, this allows us to leverage exogenous assignment to one's first project teams to make causal claims about variations in one's work environment: early in their careers, employees have neither the ability nor the specialized skills or experience needed to influence the project teams to which they are assigned; in addition, a central HR manager, and not the teams themselves, is responsible for the allocation of new hires to teams with the primary goal of minimizing non-utilized time. We further verify quantitatively that the racial composition of initial team assignments cannot predict the race and gender of the new hire.

We find that a one standard deviation (12.7 pp) increase in the percentage of White coworkers on first teams is associated with a 6.2 percentage point increase in the likelihood of Black employee turnover within two years. Relatedly, a one standard deviation increase in the percentage of White coworkers on first teams decreases the likelihood of a Black employee being promoted on time by 4.7 percentage points. These effects are asymmetric in several important dimensions. First, Black employees are the only numerical minority group to experience this negative impact of team composition on their turnover and promotion: no impact of Whiter teams on Asian and Hispanic employees' retention and turnover is detected. Second, neither having more Asian coworkers nor more Hispanic coworkers negatively affects Black employees' likelihood of leaving or being promoted. Third, White employees' career outcomes are not affected by the racial composition of their coworkers, regardless of which racial minority group we consider.

We find no evidence that Black employees work less or bill fewer hours than their Black coun-

the standard and norm.

terparts in more diverse teams; this suggests that differences in output are likely not the main cause of higher turnover for Black employees. Despite this, we note that Black employees – and in particular Black women – whose teams have a higher share of White coworkers are more likely to be labelled as low performers. Qualitative interviews corroborate and contextualize our findings: only Black employees, and particularly Black women, reported numerous ways in which interacting with their majority White coworkers negatively influenced their participation and the depth of their professional relationships.

Our findings make several contributions. First, we offer the peer effects literature (Mas and Moretti 2009) an estimate of the causal effect of coworkers on career attainment in high-wage jobs by using longitudinal fine-grained administrative data. Second, we provide empirical evidence of asymmetric coworker effects that are contingent on status, a theoretical perspective predicting that not all employees will be similarly affected by their majority White colleagues (Hurtado 1989; Turco 2010). In particular, by revealing heterogeneity among Black, Asian, and Hispanic employees in both career outcomes and peer effects, we show that a one-size-fits-all approach to understanding intra-organizational inequalities in career attainment for employees of color obscures different patterns of experiences or renders those experiences invisible. Third, our study provides management practitioners with the practical insight that even seemingly neutral organizational staffing practices can result in post-hire dynamics that limit firm diversity and heighten costs associated with developing and replacing human capital.

2. Related Literature

Across the social sciences, extant theories about race and gender inequalities in career attainment have focused on what women and men of color lack: for example, human capital or skills (Becker 2009), access to valuable social capital or returns from homophilous social networks (McPherson et al. 2001; Smith 2005; Fernandez and Fernandez-Mateo 2006), and perceived belonging and self-efficacy (Bandura 1994; Baumeister and Leary 1995). Yet each of these individual characteristics are produced in relationships with others (Tilly 1998). And, as Tomaskovic-Devey and Avent-Holt (2019) state, "there is no such thing as an individual actor, absent the relationships he or she is embedded within." Thus, in this paper, we apply a relational perspective to understanding whether and how other employees may shape career outcomes for peoples of color.

To do so, we lean on a vast interdisciplinary literature demonstrating that individual outcomes are influenced by observable and unobservable characteristics of their peers, such as classmates or

coworkers (Manski 1993; Hoxby 2000; Mannix and Neale 2005). For example, individuals' performance and productivity are measurably influenced by their higher-ability and higher-performing peers, although this has primarily been studied in schools or low-wage work contexts (Sørensen 2004; Falk and Ichino 2006; Mas and Moretti 2009; Kaur et al. 2010; Cornelissen et al. 2017; Mas and Pallais 2017; Golsteyn et al. 2021; Feld and Zölitz 2022). The share of demographically similar professional peers—in terms of race and gender, two of the most prominently institutionalized categorical distinctions in U.S. society—also shapes individuals' career outcomes (Tsui and O'Reilly 1989; Elvira and Cohen 2001; Zatzick et al. 2003; Sørensen 2004; Leonard and Levine 2006; Castilla 2011). The converse—that demographically dissimilar peers shape career outcomes—is also true. Theories of similarity-attraction (Byrne 1971), social identity (Tajfel and Turner 2004), and social contact (Allport 1954; Blau 1977) all suggest that working with a greater share of demographically dissimilar coworkers heightens the salience of one's difference and feelings of non-belonging, which can increase turnover and decrease promotion by diminishing communication and social integration for minority group members in particular (O'Reilly et al. 1989; Tsui and O'Reilly 1989; Zenger and Lawrence 1989; Jackson et al. 1991; Riordan and Shore 1997). Group competition theory complements these perspectives by detailing how majority group members, typically Whites, enact backlash and antagonistic behaviors toward minority group members when they perceive threats to their group dominance (Blalock 1967).

Due to their relatively smaller group size in elite high-wage firms, all non-White employees primarily interact with White colleagues in established organizational cultures that maintain advantage for White employees, the most dominant and privileged racial group in the United States (Blumer 1958; Bobo 1999). However, by characterizing coworkers into two groups—for example, as similar/dissimilar or majority/minority—previous studies on the effects of workplace diversity obscure potentially heterogeneous effects for different race and gender groups, who are endowed, in organizations, with different status values (Acker 1990; Bonilla-Silva 2017; Ray 2019). Race, in particular, is a status-valued characteristic that shapes people's expectations and evaluations of their own and others' performance, often exaggerating differences and reproducing stereotypic exchanges between individuals (Berger et al. 1977; Kanter 1977; Foschi 1996; Ridgeway and Smith-Lovin 1999; Bordalo et al. 2019). Such group-based and relational dynamics of status, numbers, and organizational power create the interaction contexts for everyday social exchanges at work, which Ibarra (1993) states "may have the greatest impact in shaping the nature of cross-sex/cross-race relationships."

We posit that Black, Hispanic, and Asian women and men are likely to experience interactions with high-status, majority White coworkers differently from each other. Differences in their historical immigration experience to the United States have led modern racial groups to be subordinated along multiple dimensions, such as inferiority and cultural foreignness, which are often reflected by differences in stereotype content (Kim 1999; Citrin and Sears 2014; Zou and Cheryan 2017). For example, stereotypes of Asian people as "model minorities" (Kao 1995; McGrady and Reynolds 2012)—as equally or more competent than Whites—change interracial interaction contexts (Bergsieker et al. 2010). Similarly, Hispanic people are neither perceived as White nor Black, and demonstrate greater social integration (e.g., in terms of residential segregation and intermarriage outside of pan-ethnic ingroups), and are less likely to have family connections to pre-Civil Rights-era America than Black people (Bonilla-Silva and Glover 2004; Chavez 2013; Sears 2015). Such hierarchical racial constructions can also shape other cross-group attitudes (e.g., Asians who endorse the "model minority myth" and Hispanics, who identify more with Whites, hold greater anti-Black attitudes (McClain et al. 2006; Park et al. 2015; Yi and Todd 2021)).

Asymmetric effects for Black employees. In the United States, a rigid and relatively impermeable boundary, or color line, separates Black and White people (Bourdieu and Wacquant 1999; Omi and Winant 2018; Derenoncourt et al. 2022). To this day, Black women and men perceive significantly more frequent discrimination and are four times more likely to report heightened group consciousness than their Hispanic and Asian counterparts, providing evidence that the color line separating White people from Black people remains more impermeable than the lines separating White people from other minority groups of color (Bourdieu and Wacquant 1999; Brondolo et al. 2006; Landrine et al. 2006; Sears and Savalei 2006; Sears 2015; Omi and Winant 2018). Without the power, status, or group size needed to change the interaction context in high-wage professions, routine daily interactions often call on Black employees to ensure their White coworkers feel comfortable by managing their Black identity and adhering to racialized norms of emotional expressions (Wingfield 2010), keeping silent when faced with racial bias, demonstrating their competence, and upholding, conforming to, and enforcing interaction norms established by their higher-status White colleagues (Wingfield and Alston 2014).

Further evidence documents the double disadvantage of Black women, whose experience is shaped by the intersection of multiple subordinated identities (Hall et al. 2019; Petsko and Bodenhausen 2019). Indeed, Black women's outcomes and experiences differ from those of other members of their gender or racial categories (Crenshaw 1989; Bell Smith and Nkomo 2003; Settles

2006; Purdie-Vaughns and Eibach 2008). Relative to Black men, for example, Black women are underrepresented at the top of the corporate hierarchy, holding roughly 3% of Fortune 500 board seats in 2020, and earn lower pay across the majority of occupations (Deloitte, LLP 2019). At work, Black women are more often harassed than Black men, experiencing harassment related to both sex and race (Berdahl and Moore 2006). Thus, Black women professionals' interactions with White coworkers are likely distinct from those of their Black male counterparts.

As such, a one-size-fits-all approach to understanding peer effects for employees of color may obscure or render invisible different patterns of experiences that may have direct implications for critical career outcomes like turnover and promotion.

3. Institutional Setting and Data

3.1. Institutional Setting

Field site. The field site for our research, which we refer to as ProfServ to protect its anonymity, is a large knowledge-intensive global professional services firm that uses teams to advise clients on a variety of projects. Typically, partners attract work, then deploy teams that include junior employees to execute this work (Gilson and Mnookin 1985). New employees are assigned to their first project teams by staffers whose primary responsibility is to manage resource allocation.

As both a knowledge producer for its clients and a prototype of a knowledge-intensive organization itself, ProfServ is particularly well-suited to the study of elite careers (Suddaby and Greenwood 2001; Gardner 2012; McGinn and Milkman 2013). First, ProfServ is hierarchically structured, such that junior professionals are required to demonstrate their value to the company (or leave) over a specific time period early in their tenure, making the first few years of employment especially important for career attainment (Kahn and Huberman 1988; Sherer and Lee 2002; Hewlett and Luce 2006). Specifically, after two years, employees are expected to either receive promotions or leave the company. Second, because work is organized in teams, which provide knowledge work and knowledge sharing, experiences with coworkers impact not only one's socialization but also one's success within the firm, which is critical for career mobility (Anderson-Gough et al. 2000; Davenport et al. 2002; Cross and Parker 2004). Third, in this setting, human capital is the primary asset and is expensive to develop and replace, making employee turnover costly (Sherer 1995; von Nordenflycht 2010; Nishii 2012). Gallup estimates the cost of turnover ranges from 50% to 200% of an employee's annual pay (McFeely and Wigert 2019), a sizable amount for any organization, but particularly for those with high wage employees. Fourth, with more than 50,000 employees,

ProfServ is one of the largest firms in its industry, which allows us to include enough junior employees of various races and genders and sufficient turnover to be able to empirically test our research questions.

Focus on new hires. As we note, the first two years at the firm are critical for long-term success, and more broadly initial experiences can have imprinting effects that are persistent over time (Briscoe and Kellogg 2011; Marquis and Tilcsik 2013; Tilcsik 2014; Rothstein 2021). From a methodological standpoint, the allocation process of inexperienced new hires to teams at ProfServ presents a crucial advantage. While tenured or experienced employees have some influence on the projects they work on, inexperienced new hires—employees recruited directly from degree programs with no prior experience (e.g., internships) at ProfServ—do not. Conditional on the office they are hired into, which is defined as the geographic location (city) and department (business) in which they work, the assignment to projects of these employees is as good as random. We confirm this key feature of our design both qualitatively and quantitatively in Section 4.2. Thus, we focus on describing and analyzing the career attainment and experience of new hires.

3.2. Data

Data for this study was sourced from seven years of ProfServ's administrative employment data and project billing records, from 2014 to 2020. From ProfServ's administrative employment data, we observe employees' hiring dates, job changes (including promotions), exits, geographic location, and the department to which they were assigned. Administrative data also contain employees' self-reported racial identity[2], sex[3], and education history. From ProfServ's project billing records, we observe the universe of projects to which employees report billing their time at a monthly level. Project billing data includes the number of hours each employee bills to a project, the type of engagement, and whether the project is considered a business priority by ProfServ. We refer to people who are working on the same project as coworkers who are part of the same project "team." A given employee may work on multiple team projects simultaneously.

Sample. ProfServ employs over 50,000 people, distributed across numerous U.S. cities and departments. Figure I depicts the share of Black, Asian, Hispanic, and White U.S. employees by job

[2] Similar to the Census, the administrative data we used asked employees to identify with panethnic categories, such as Asian and Hispanic, that consolidate ethnic, tribal, religious, and national groups (Okamoto and Cristina Mora 2014). While the motivation and construction process for different panethnic categories vary, there is evidence of growing panethnic identification and a sense of metagroup unity. We verified that the sample who does and does not self-report their race do not differ on other observables, both pre-entry characteristics such as sex and education and firm career trajectories, e.g., average turnover and promotion rates.

[3] During our study window, newly-hired employees were required to self-report their sex at birth (male or female).

level. At the most junior level of these jobs, which we term "Professionals," fewer than half of all employees are White, with Asian employees being the second largest group. Further racial stratification is evident at more senior job levels, which we refer to as "Middle" and "Top" Management. Indicatively, the share of Black employees in Top Management is a third of the share at more junior levels. Conversely, the share of White employees is greater than 80% at the Top Management level.

Our final sample of study consists of 11,776[4] full-time junior professionals hired between 2014 and 2020. The study sample, as described in Table B.1, includes White men (33.1%), White women (24.3%), Asian men (13.5%), Asian women (17.3%), Hispanic men (3.9%), Hispanic women (3.1%), Black men (2.5%) and Black women (2.3%). Table I further summarizes the project and employee characteristics of our full-time newly hired junior professional sample. New hires are on average 24 years of age, and all have an undergraduate degree; 34% have a master's degree, and 12% have degrees from a Top 20 ranked U.S. school. The median number of projects per month that employees bill time to is 3, the median length of a project is 8 months, and the average number of coworkers per project is 18.

Dependent variables. Our main outcomes of interest are turnover and promotion. Turnover is measured as a binary variable that takes the value 1 in the month that the employee leaves the sample and 0 otherwise. Similarly, promotion is measured as a binary variable that takes the value 1 in the month that the employee is promoted and 0 otherwise. Our data does not allow us to distinguish between voluntary and involuntary turnover of high-wage employees, both of which impose significant costs for the firm. We note, however, that the substantive difference between voluntary and involuntary turnover is often nebulous because some employees resign in anticipation of being terminated and, conversely, others may prefer a termination instead of resigning for a range of reasons (e.g., benefits). We also define binary indicators for "turnover within two years" and "promotion within two-and-a-half years" for whether an employee exits within two years or is promoted in the six months after they meet the two-year tenure mark, in line with expected promotion cycles.[5] For these models, we subset the data to employees that we observe for at least two years for turnover (N=7,617) or two-and-a-half years for promotion (N=7,351). In this

[4] From 2014-2020, the total sample of full-time junior professionals in the U.S. is 27,790. Out of those, we excluded 12,683 employees who had prior experience with ProfServ (e.g., internships, rehires) that likely influenced their initial project team assignments. We excluded an additional 884 employees whose race we could not identify and 55 employees whose race was either Native American, Alaska Native, Hawaiian Native, or Islander because those racial identity samples were too small for analysis. Given that our main analysis considers coworkers' race, we also excluded 2,392 employees for whom we could not identify the racial identity of at least half of their coworkers.

[5] In Section 5.2, we show that changing the window within which turnover and promotion are observed does not meaningfully change our results.

organizational context, promotion is substantively similar to turnover in that if someone does not get promoted "on time" (i.e., within two-and-a-half years of their hire), or anticipates not getting promoted, they are likely to leave.

Overall, approximately 22.2% of our sample turn over within two years of hire, and 64.2% are promoted on time. Turnover is lowest and promotion is highest for White employees in our sample, at 21.1% and 67.6%, respectively. We therefore use White employees as the reference group for all analyses. The raw turnover and promotion gaps between White and Black employees are 7.6 percentage points and 16.5 percentage points, respectively. Figure II depicts the estimated Kaplan-Meier (KM) curves for employees by race, demonstrating how turnover rates vary over time. Black turnover starts to diverge from other groups before one year (at approximately 250 days) and stays consistently higher thereafter.[6]

Independent variables. The main independent variable of study is the (leave out) share of White coworkers each employee works with across all the projects[7] they are assigned to in the first three months of their employment, when utilization is centrally managed[8] (hereafter called "first project assignments"). Coworkers in a given project are defined as all employees working on the same project as the focal new hire, excluding the managers of the project. For each project, we compute the share of White coworkers with whom the focal new hire works. The share of White coworkers across all first project assignments is then computed as the weighted average share of White coworkers across projects, weighted by the number of hours that the individual has worked on each project.

Figure III depicts the distribution of the average share of White coworkers in first project assignments. This figure illustrates that there is substantial variation in the share of White coworkers across new hires: one standard deviation in the share of White coworker is 20.3 percentage points, and even after residualizing on the office $\times$ year fixed effects that we use in our later analysis, this standard deviation remains large, at 12.7 percentage points. Figure A.1 shows the distribution for exposure to other racial identity groups that are relatively smaller in size.

[6] Figure A.2 shows the same KM curve on promotion. In addition, Table B.2 presents the raw mean turnover and promotion by employees' race and gender.

[7] Based on insights from our ProfServ research partners, we exclude projects with more than 60 employees (which represents 5.4% of all initial projects) because these projects may reflect distinct administrative functions and should not be conceptualized as employees working on the same team. Changing our team size threshold does not meaningfully alter our results, as discussed in our robustness checks (Section 5.2).

[8] We use a three month time window, based on feedback from our ProfServ partners related to when junior employees have no control over their project assignments. In robustness checks below, we examine the sensitivity of our results to this initial time period window, with alternative specifications going from two to six months.

4. Empirical Strategy and Randomization Check

4.1. Empirical Strategy

We are first interested in documenting racial turnover and promotion gaps. To do so, we estimate the following model:

$$1_{ij} = \alpha + R_i'\beta_0 + X_i'\gamma + \delta_j + \epsilon_{ij} \tag{1}$$

where 1_{ij} is our main outcome variable, a binary that equals 1 if individual i in office j leaves the firm within two years or 0 otherwise. For promotion, we use a binary equal to 1 if employee i is promoted within two-and-a-half years ("on time"), or 0 otherwise. R_i' is a vector of (own) racial identity dummies (Black, Asian and Hispanic), in which White is the baseline (omitted) group. To enhance the precision of our estimates, we also include a vector of individual-level controls, X_i'. This vector includes four types of demographic variables (Gender, Age, Education Rank, and Masters) as well as controls for differences in the nature of initial team project. The "Education Rank" variable consists of four categories that ranks the highest-ranked university from which a professional has a degree (top 20, 21-100, 101-1000, and 1001+), constructed based on rankings from the Times, Chetty, and Carnegie Classification (Chetty et al. 2020). We include two types of "Masters" variables, one indicating whether the employee had a master's degree and another indicating whether the employee had a specialized technical master's valued by ProfServ. To control for differences in the nature of initial team project assignments, we include controls for the average number of coworkers across all initial assignments (Team Size), a dummy for whether the new hire was initially assigned to at least one priority project[9] and a month of hire fixed effect (1 to 12). Finally, δ_j denotes the office $\times$ year of hire fixed effect (hereafter labeled office-year fixed effect), and ϵ_{ij} is the error term. We cluster the standard errors at the office-year level. We also estimate Equation 1 interacting the gender of the new hire with their race to test for intersectional differences in turnover and promotion.

We then turn to estimating the effect of a change in the share of White coworkers on the turnover of new hires. Leveraging the conditional random assignment of new hires to teams, which we formally test in the next section, we run the following model for each of our outcome variables (turnover and promotion):

[9] A priority project is defined by the firm itself, and relates to a ranking of how valuable a given project is to the business operations of the firm.

$$1_{ij} = \alpha + R_i'\beta_0 + W_{-i}\beta_1 + W_{-i}R_i'\beta_2 + X_i'\gamma + \delta_j + \epsilon_{ij} \quad (2)$$

Compared to Equation 1, this model introduces W_{-i}, that is, the (leave out) share of White coworkers that new hire i works with in their first project assignments.[10] β_2 is then our vector of coefficients of interest, capturing the impact on turnover of an increase in the share of White coworkers for each of our minority new hires (Black, Asian and Hispanic), relative to its impact on White new hires (captured by β_1). The vector X_i' now also contains the share of Asian, Black, and female coworkers in first project assignments as well as the share of managers who are White (interacted with the employee's own racial identity), Black, Asian, and female in the employee's first project assignments.[11] We also estimate Equation 1, controlling for the gender of the new hire and adding a three-way interaction between race, gender, and the share of White coworkers to test for intersectional differences in the impact of White coworkers on turnover and promotion.

Second, we run Cox proportional hazard models, stratified at the office-year level so that each office-year has its own flexible, baseline hazard function. We use the same covariates as in the OLS regression, and the likelihood function is then formed by first calculating for each duration time t the conditional probability that, of all new hires employed at a given office for at least t days, a particular new hire i leaves (or is promoted) on day t; and by then taking the product of these conditional probabilities (Cox 1975).[12]

4.2. Randomization Check

Our identification strategy depends on observing a sample of newly hired employees whose assignment to projects early in their career is as good as random, conditional on the office in which they work. We are particularly interested in confirming that newly hired employees' race and gender does not predict their team assignment within an office.

We first explore this assumption qualitatively through 11 informational interviews with ProfServ managers to understand how newly hired employees are assigned to teams. Our interviews confirmed that the primary objective of HR managers tasked with staffing assignments was to minimize non-utilized time rather than to maximize "fit" between newly hired professionals and their team assignments, which would have heightened concerns about correlations with unobserved character-

[10] For more details on how this variable is constructed, see the Independent variables paragraph in Section 3.2.
[11] Our results are not sensitive to the addition of these variables to X_i', as illustrated in Section 5.2.
[12] The sample for these regressions is somewhat larger because we do not limit it to individuals we can observe for at least a two-year period for turnover (and two-and-a-half years for promotion).

istics of coworkers and projects. Our interviewees stated that two characteristics of newly hired professionals were taken into account when making staffing decisions: their city and the department into which they were hired. When we probed about other factors that influenced newly hired employees' assignments to teams, one manager simply stated that "a first year is a first year is a first year." Whereas more experienced professionals may have areas of specialization or distinct skills, first-year junior employees lacked any such distinguishing characteristics. Thus, while a newly hired professional's assignment to teams was conditional on their city, department, and hiring cohort, qualitative interviews suggested these assignments were orthogonal to other characteristics of the project.

We then confirm these findings quantitatively. Table II Panels A and B reports a series of random assignment tests regressing employee characteristics that were determined prior to their entry—their racial and gender identity, education, and age—on the racial composition of their initial teams, controlling for office-year fixed effects. We do not observe a systematic relationship between observable pre-hire characteristics of employees and the racial composition of their coworkers on teams.[13] Adding individual-level controls does not change our findings, as shown in Table B.3.

Since the quality of the first projects may shape individual turnover and promotion independently from the racial composition of the team, we would ideally also have random assignment of projects to teams. While that is not the case, we can still explore whether the racial composition of teams is predictive of some observable characteristics of the projects on which a team works. Specifically, we use an indicator of project "quality" to confirm that the racial composition of teams is orthogonal to how important a project is to the firm. We do this using a variable, provided by the firm, that identifies high-priority projects in a ranked order (from 1 to 4, where 1 is the highest priority). Panel C of Table II reports that the business priority rank of a project (from 1 - "top priority" to 4 - "Fourth priority") is not systematically related to the racial composition of the team. Although this does not eliminate concerns about a correlation between unobservable characteristics of projects and the racial composition of one's coworkers, our results demonstrate that there is not a relationship between either (a) observable pre-hire characteristics of employees and team racial composition, or (b) observable project characteristics and team racial composition in our sample.

[13] The only significant coefficient is the one on the share of Asian coworkers in Column 3 of Panel A, where the dependent variable is a dummy equal to 1 if the new hire is an Asian woman. While statistically significant, this coefficient is economically small.

5. Results

The racial turnover gap. We begin by examining the main effect of race and the interaction of race and gender on turnover. Table III, Column 1 reports results from linear probability models regressing turnover on employees' race, including controls for individual and project characteristics, and office-year fixed effects. Black employees are 7.4 percentage points ($p < 0.01$) more likely to exit within two years than their White counterparts, whose average turnover rate is 21.1 percentage points. Column 1 also reveals that Asian employees are marginally more likely to turn over than their White counterparts (2.7 percentage points; $p < 0.10$). Adding the new hire's gender as a control in Column 2 does not alter the magnitude of the racial turnover gaps and further shows that men are on average 3.9 percentage points ($p < 0.01$) more likely to turn over than their female counterparts. Column 3 disentangles the effects of race and gender. Neither Black, Asian, nor Hispanic men have turnover rates that are significantly different from their respective same-race female counterparts. However, White men are 4.9 percentage points ($p < 0.01$) more likely to turn over than their White women counterparts, whose turnover rate is the lowest, at 17.2 percentage points. Columns 4, 5, and 6 of Table III report results from Cox proportional hazard models estimating employees' time to exit as a function of their race and gender. All results are consistent with OLS regression results. In particular, Column 5 indicates that the turnover rate of Black new hires is 25.2% higher than their White counterparts' ($p < 0.05$) and Column 6 indicates that, relative to White women, the turnover rate of Black women is 31.5% higher ($p < 0.05$).

The racial promotion gap. We now turn to the main effect of race and the interaction of race and gender on promotion. Column 1 of Table IV reports that Black employees receive promotions in time at the lowest rate in ProfServ, 51.2%, which is 16.4 percentage points ($p < 0.01$) less than their White counterparts. Also, Asian employees are 3.6% ($p < 0.05$) less likely to be promoted than White employees, which is significantly different from the Black promotion experience ($p < 0.01$). Adding the new hire's gender as a control in Column 2 does not alter the magnitude of the racial promotion gaps and further shows that men are, on average, 4.7 percentage points ($p < 0.01$) less likely to be promoted on time than their female counterparts.[14] Column 3 interacts the gender and race of the new hire and reveals that neither Black nor Asian men receive promotions at rates that are statistically significantly different from their same-race women counterparts. In contrast, White men are 3.5 percentage points ($p < 0.01$) less likely to be promoted on time than

[14] Note that this is due in part to the fact that men are more likely to leave the firm within two years, in which case they are considered as not getting promoted on time.

their White female counterparts, who have the highest promotion rate, at 72.9%. Results from Cox proportional hazard models in Table IV are consistent with our OLS regression results: Column 6 shows that Black women are 27.8% less likely than their White women counterparts to receive a promotion on time ($p < 0.05$).

To summarize, we find strong evidence of a consistent racial hierarchy across all racial groups and heterogeneity among peoples of color (Hurtado 1989; Purdie-Vaughns and Eibach 2008; Ray 2019): White employees, and in particular White women, fare the best on both retention and promotion outcomes. Black employees fare the worst in terms of turnover and promotion rates relative to their White, Asian, and Hispanic colleagues. In contrast, Hispanic employees—a group similar in size to that of Black employees and similarly underrepresented in top management positions at ProfServ—are statistically indistinguishable from their White colleagues in terms of their early career attainment.

5.1. Asymmetric Peer Effects at Work

Effects of the share of White coworkers on turnover and promotion. Tables V and VI report how the share of White coworkers interacts with an employee's race and gender in predicting career attainment. The effect of the share of White coworkers on Black employees is both statistically significant and economically meaningful. Table V, Column 2, shows that for Black new hires, a one percentage point increase in the share of White coworkers is associated with a 0.498 percentage point increase in the likelihood of leaving the firm within two years.[15] The corresponding Cox hazard models in Column 5 find similar effects. This effect is asymmetric; we do not see similar patterns for other racial groups when interacting with the share of White coworkers. In particular, the coefficients on Share White coworkers, Asian × Share White coworkers, and Hispanic × Share White coworkers are all insignificant and close to zero. That is, the likelihood of turnover for White, Asian, or Hispanic (a group similar in size to Black) employees is not affected by their share of White colleagues. This finding confirms the importance of considering the differential experience of Black employees as separate from other employees of color who may also be numerical minorities. While we are not powered to detect a significant difference, Column 3 provides suggestive evidence that Black women are the most affected group.

Table VI follows the same structure as above but considers "on time" promotion as the main outcome. Column 2 shows that for Black new hires, a one percentage point increase in the share of

[15] This is obtained by adding β_1, the coefficient on the share of White coworkers, to the coefficient on the share of White coworkers interacted with the Black dummy (equal to 1 when the new hire is Black).

White coworkers is associated with a 0.371 percentage point increase in the likelihood of leaving the firm within two years. Column 3 shows that this effect is driven by the effect of White coworkers on Black women, rather than men. We do not find similarly significant interaction effects of the share of White coworkers on Asian and Hispanic promotion rates.

Effects of White women and men on turnover and promotion. Figure IV aims to further investigate two questions about what drives our main finding on the impact of White coworkers on Black employees: (a) whether this effect is differentially driven by either White men or White women; and (b) whether Black men or Black women are differentially affected by either White men or White Women. We plot the key coefficients from different models. We note that White coworkers appear to influence Black men and Black women in different ways. On the one hand, White men influence the likelihood of promotion for Black women as well as the turnover likelihood for Black men. White women, on the other hand, only appear to shape turnover for Black women, not Black men. This may suggest that White male peers have greater influence on their Black colleagues and through more channels than White women, providing evidence that racialized hierarchies can be gendered. Future research with larger samples of cross-race dyads can draw on an intersectional lens to investigate this further.

Effects of Asian, Hispanic, and Black coworkers on turnover and promotion. Our results identify a causal effect of exposure to more White coworkers on Black turnover and promotion. The tables presented above already point to one type of asymmetric peer effect; namely, in contrast with Black employees, Asian and Hispanic employees' turnover and promotion are not affected by exposure to more White coworkers. While our main specification focuses on the share of White coworkers, we now investigate the effect of Asian, Black, and Hispanic coworkers on the turnover of new hires. Figure V illustrates these additional effects by plotting interaction coefficients from separate models that consider coworkers' racial composition on employees' turnover. The first four coefficients (to the left of the graph) correspond to Table V coefficients on the two-way interaction between the share of White coworkers and, respectively, Black, Asian, Hispanic, and White employees.[16] The next four correspond to a specification where we replace White coworkers with Black coworkers in Equation 2 . Two patterns emerge from this analysis. First, an increase in the share of Black coworkers does not significantly impact the turnover of White employees (nor of Hispanic or Asian employees).[17] Second, we find that having more Black coworkers decreases the

[16] The latter being the coefficient on share of White coworkers, given that it is the omitted category.

[17] One caveat of this analysis is that the distributions of White and Black coworkers do not have the same support. White employees are not exposed to very large shares of Black coworkers, rendering a direct comparison between

turnover of Black employees ($p < 0.10$). This is in line with the finding commonly documented in the literature that having more similar peers (in this case, Black coworkers) has a positive effect on retention. The size of the coefficient on Black $\times$ Share Black coworkers is about half that of the coefficient on White $\times$ Share Black coworkers; however, we advise against directly drawing conclusions on different magnitudes of these effects, as the overall distributions of the share of Black coworkers and White coworkers are different. In Equation 1, the next two sets of models replace White coworkers with Hispanic and Asian coworkers, respectively. In contrast with White coworkers, we do not observe that having more Asian and Hispanic coworkers negatively impacts Black career attainment. Having more Hispanic coworkers even seems to increase the retention of Black coworkers, although given the rare overlap of Hispanic and Black coworkers in a team (as, by far, the two smallest groups at the firm), the standard errors are very large, and we caution against definitive conclusions. Nonetheless, we note that this pattern only appears for Black employees; we do not see similar patterns of having more same-race and other non-White peers for Asian and Hispanic employees.

Manager and non-linear effects. Given past research finding that managers influence junior employees' careers through project assignments, training, and performance evaluations (Cohen et al. 1998; Castilla 2011; McGinn and Milkman 2013; Srivastava and Sherman 2015; Abraham 2017), we also explore whether the race of one's manager in their initial assignments has any effect on their later turnover and promotion. Table B.4 reports results from OLS regression and Cox hazard models of turnover on initial share of managers' race as well as interacted with a newly hired employees' racial identity. No substantive or significant effects are detected in turnover (or promotion, not reported), failing to provide evidence that managers' racial identities influence newly hired employees early attainment within the firm. Further inquiry with ProfServ revealed that managers in their project-team based organizational structure tend to have less of a singular influence over junior employees than in other hierarchical structures.

Our main findings are modeled as a linear relationship between exposure to White coworkers and Black turnover. However, it is possible that the effects are nonlinear in important ways. For example, in models not shown, we interact Black employees with a squared term for the share of White coworkers. We do not find statistically significant effects of our key interaction with the squared term, providing no evidence that the relationship between Black employees and their share of White coworkers is curvilinear. Also, theories of tokenism suggest that Black employees who are

the coefficients difficult.

the only Black people on their teams are likely to experience greater isolation, resulting in stronger negative peer effects than Black employees working with at least one other Black coworker. To explore whether our main finding is driven by tokenism, we remove from our sample teams in which only one Black employee is present and re-run our main model specifications. Our main results hold (Table B.5), suggesting that tokenism is not driving the results.

5.2. Robustness checks

We estimated additional models to test the robustness of our findings to alternative specifications. First, we consider team size, which we censored to teams of fewer than 60 employees in our main results. Our study results are robust to varying this censoring of team size: Figure A.3 shows our key coefficients of interest in Equation 2 (i.e., the two-way interaction between Black and Share White Coworkers and three-way interaction, layering in the gender of the new hire), varying the threshold team size from 40 to 80 employees (in increments of 10). Second, in Figure A.4, we explore how varying the time window of initial team assignments shapes our findings. Our key coefficients of interest have the same magnitude and statistical significance whether we consider as "initial" assignments the projects that are in the first two, three, four, or six months at the firm, which all corresponded to the time period during which ProfServ reported that newly hired employees would not have influence over their project team assignments. Third, while our main estimate of turnover considers a 2 year window, our results remain significant (albeit of smaller magnitude) if we estimate turnover within 1 year and 18 months as illustrated in Figure A.6. Our results remain qualitatively unchanged when considering promotion within 2 years, 2.5 years, and 3 years of the start date, as illustrated in Figure A.7.

We also explored whether a higher proportion of White coworkers is confounded by individual characteristics of coworkers that may be driving our results. For example, given that diversity has improved in the company over time, it is possible that Whiter teams are also older, on average. We therefore ran additional models controlling for the median and maximum age of other coworkers on their teams, and they do not change our results.

6. Mechanisms

Quantitative evidence. To better understand the likely mechanisms that could explain our main findings, we use both quantitative and qualitative data. Below, we first present findings on potential mechanisms that we can observe in our quantitative data. Our main results already control for observable individual characteristics prior to firm entry that could proxy for ability,

such as educational background, ranking of degree-granting institutions, and age at hire, and we show that those pre-firm characteristics are not driving our results on turnover or promotion. Indeed, Figure A.5 presents our coefficients of interest when we remove individual controls from the estimation of Equation 2, and the results are virtually the same.

Yet, it remains possible that exposure to White teams alters the work patterns of Black employees on the job in ways that then impact turnover and promotion. To explore these types of mechanisms quantitatively, Table VII investigates the relationship between early exposure to White coworkers and multiple types of on-the-job behaviors that could influence turnover or promotion: the number of overall and billable hours (time charged to a client) worked, employee assignment to higher priority projects, and performance evaluations. Specifically, Table VII considers four outcomes: the average number of overall hours worked (Columns 1 and 2), the average number of billable hours worked (Columns 3 and 4), two measures of project prioritization (Columns 5 and 6), and an indicator for low performance evaluation (Columns 7 and 8). To measure the quality of projects assigned to an employee, we consider the share of projects in different prioritization rankings that an employee is assigned to as well as the likelihood that they are given a very high-priority project. To measure whether an employee received a low performance evaluation, we use a binary indicator for whether an employee was labelled as a low performer. We note that this is only one part of a broader performance evaluation process (which we do not describe here for anonymity purposes).

The results suggest that differences in total and billable hours worked, and firm prioritization of projects do not underpin our main interaction effects. We observe no statistically significant relationship on any of these measures for our interaction terms of interest. Despite this fact, Black employees, and in particular Black women, are more likely to be labelled as lower performers. Importantly, the larger the share of White coworkers on a team, the more likely it is that a Black employee will be labelled as a low performer. These findings are in line with previous research that shows that the racial composition of one's workplace may influence their performance evaluations, in particular (Tsui and O'Reilly 1989; Castilla 2011).

Qualitative evidence: the importance of coworkers for navigating uncertainty. To contextualize our quantitative results and deepen our understanding of possible mechanisms that could not be detected using available administrative data, we conducted 18 semi-structured interviews (average length, 46 minutes) with participants invited at random. Thirteen participants self-identified as non-White (seven as Black), and ten self-identified as women. In each interview, we asked participants to describe how newly hired ProfServ employees could achieve success

and their own working experiences at ProfServ. We probed further with respect to individuals' self-reported behaviors, interpersonal dynamics, and, specifically, beliefs they associated with career advancement (e.g., participation, feedback on their teams) insofar as this information did not emerge organically from their initial responses.

The employees we interviewed consistently described uncertainty and anxiety about how to advance their careers at ProfServ. This uncertainty did not seem to vary by department, race, gender, age, geography, or seniority. After 14 years at ProfServ, a senior employee stated that the factors determining employees' success were "still a little bit unclear for everyone"; another senior participant agreed that "everything is so non-transparent." When describing why she was not promoted, a participant reported that "it would be better if they explained why . . . I didn't get it, which is fine, if I understood why." Even those who had ostensibly achieved promotions and longer tenures emphasized how challenging it was to learn about what the firm valued and how specific these performance expectations were to ProfServ. One senior participant said, "One of the things that kind of gets you through the levels at ProfServ is also having that firm knowledge. It's a lot to kind of learn the processes and the way they do things. You enter the world of ProfServ, but then you still have to navigate yourself through it, including getting a project (aka getting a job) and you feel like you're entering this new universe with certain rules."

Lacking clarity about specific performance expectations, participants stressed the importance of building and maintaining strong relationships with key professionals to navigate their careers within ProfServ. One participant stated, "It's not only the delivery of your job, it's who knows you and who can vouch for you." Another agreed that "you have to find the rainmakers and stick to them." A senior participant emphasized, "you kind of have to make a name for yourself," in part by building professional networks. Participants described a range of reasons for relying on their professional networks: to gain visibility within the firm, access to revenue-generating project teams, and help navigating the firm's various evaluation systems. In short, our interview participants were unanimous in their uncertainty about precisely what employees needed to do to advance their careers in ProfServ and their belief that, in response to this lack of clarity on formal performance metrics, building and maintaining relationships with coworkers became a critical factor shaping success.

Different experiences for Asian, Hispanic, and Black employees. Given the importance of developing and maintaining relationships with coworkers, participants who identified as Asian, Hispanic, and Black pointed out several specific barriers to developing strong positive interactions

with (predominantly White) coworkers. All 13 participants revealed numerous ways in which interacting with their coworkers negatively influenced their participation and the depth of their professional relationships. Black employees described the importance of managing their identity as Black employees among their non-Black coworkers and the effort required to do so. One senior Black female participant stated, "over and above the professional etiquette that we all have to abide by, we [Black employees] have to be a lot more conscious about what we say, how we act, etc. [than White employees]." Offering further explanation for why being Black required careful management in ProfServ, one Black male participant described an interaction where his White coworkers praised him for being different from other Black people in the region, saying, "You're not like them." Another Black female participant reported that her coworkers told her she had "a bad vibe, gives out the wrong vibe." Black employees were clear that their efforts to manage how their non-Black coworkers perceived them were conscious. "I always think, how do people experience me at work, so I've always been very conscious of that," another Black male participant elaborated. "How am I supposed to bring my authentic self to work if I'm still feeling very self-conscious because of the team dynamic?" These interactional dynamics obstructed their participation in teams. One Black female participant reported that she did not use Ebonics, "but I do find that people tend to stereotype grammar and that way of speaking. If you're not as eloquent, your opinion matters less." Another Black female participant stated, "What I have to say carries less meaning than my White counterparts. So a lot of the time, I don't speak up unnecessarily, I don't give my opinion, because even though she [a White colleague] is saying something that doesn't make sense . . . it doesn't matter what you're saying, I don't bother."

Another Black female described her confusion when she observed differences between how her coworkers speak to her and how they behave at work: "'Oh [participant], you're crushing it, you're killing it,' then why not invite me to this particular thing that would allow me to continue networking with the clients . . . I don't fit their mold, I don't know what their mold is. Is it a typical White male?" Black participants also reported difficulty accessing feedback about their performance, which they perceived as critical to advancing in the firm. One Black female expressed her frustration: "No one is ever willing to give you the frank, negative feedback . . . I constantly asked for feedback ... I'm out of the loop . . . so I don't know what there is to be done."

Black participants described how being Black made it harder to develop deep relationships with coworkers and managers. A Black female participant imagined how different her work experience could be if she were White: "I would probably be able to relate better to my manager because

he's also White, I'd probably likely be invited to his house for whatever team things that they had that I wasn't invited to. He would be interested in my professional growth, so he would set me up and give me the things I needed. I wouldn't have had to prompt anyone." A senior Black female participant reported, "I have to prove myself through my work, not through that built in camaraderie . . . it's easier for people at the upper levels, who are mostly White men, to relate to people like them [in junior positions]."

While participants who self-identified as either Asian or Hispanic also described challenges they faced during their socialization process, they reported less aggrieved racial group consciousness and perceived less discrimination against themselves or other members of their group. One senior participant who self-identified as an Asian man revealed a consciousness about his racial identity but reflected a business-based justification about how racial diversity contributes to the firm's profitability. He stated: "I understand that diversity is important, inclusive, adding value to a more comprehensive approach . . . I totally understand, but I don't know . . . The firm's portfolio [in terms of race] looks like it's in line with the client portfolio. So that's why, I'm [Asian], I belong to the [Asian] group. We have a significant Asian client [list], which is why the firm keeps [Asian] bilingual [employees], which kind of makes sense."

Another Asian male participant described how his experience as a first-generation child of Asian immigrants influenced his behavior at work, but did not heighten his experience of discrimination: "I think, coming from an immigrant background, being Asian, like, you never say no to anything. And I think that's kind of a trait of people who are first generation. You can get into that rut of just not saying no, [when] some of your other peers may know when to say no. But then, as a result they'll do better on their actual individual projects. And even though they're taking on less, they will progress further because the quality of their work is better and they're still meeting their hours goals, whereas you're just floundering, trying to stay above water."

Yet another example of how Asian and Hispanic employees' experience is distinct from their Black counterparts came from a senior Hispanic female participant. She stated, "I do not identify, however, as Hispanic . . . I never got access to 'Hispanic Support,' 'Hispanic Scholarship,' 'Hispanics whatever.' I identify as international, really . . . I check it [the firm's Hispanic box], but I personally don't identify as it . . . that's always second-generation Hispanics, that's like different backgrounds, right. I'm privileged class, I had the best education I could back home, you know, like I don't, didn't have the same struggles as Hispanics [in the United States]."

Overall, our participants' sense of uncertainty about how to advance within the company meant

that many placed emphasis on their interactions with colleagues as an avenue for career success. Only Black participants described tensions when interacting with White coworkers and perceived negative consequences of these racialized challenges. Our qualitative interviews further illustrated how the experience of being Black at the firm was distinct from the experiences of Asian and Hispanic employees, who also reported racial consciousness but did not perceive discrimination in the same way as their Black counterparts.

7. Discussion

We pursued three primary goals in this paper: (1) to evaluate whether race and gender differentially shape retention and promotion patterns; (2) to estimate the causal effect of early assignment to a greater share of White coworkers for different employees of color; and (3) to identify mechanisms through which initial team composition could conceivably influence longer-term individual outcomes. We began by documenting, within offices and after controlling for individual characteristics, a 7.6 percentage point gap in turnover and a 16.5 percentage point gap in promotion between Black employees and their White counterparts. We find that a one standard deviation increase in the share of White coworkers early in an employee's career increased Black turnover by 6.2 percentage points and reduced the likelihood of promotion of Black employees by 4.7 percentage points. No other employees of color, even similarly sized numerical minorities, were affected by White coworkers in the same way. Further, the career attainment of White employees was not affected by any racial group.

Our research makes a number of contributions. First, we contribute directly to the literature on peer effects at work. This literature has offered mixed evidence about the nature of peer effects, mainly focusing on managers' effects, performance, and productivity, and primarily studying low-wage work (Sørensen 2004; Leonard and Levine 2006; Giuliano et al. 2011; Cornelissen et al. 2017; Glover et al. 2017). By drawing on longitudinal fine-grained administrative data in a work context where initial teams vary exogenously, we move beyond short-term performance outcomes to identify the longer-term causal effects of peers on two critical labor market outcomes, turnover and promotion. Second, our study of a knowledge worker environment expands understanding of the possible mechanisms through which one's peers can affect their careers. Third, we unpacked the racial dynamics at an elite, high-wage firm as opposed to the more common low-wage setting. Since differences at the top decile of the income distribution disproportionately shape economic inequality (Saez 2008), understanding racial differences in career trajectories for prestigious jobs can help

identify a key mechanism underlying inequality. Fourth, our study injects nuance to the "people of color" myth by moving beyond a binary characterization of peers (e.g., as similar/dissimilar, or majority/minority) to reveal heterogeneity among Black, Asian, and Hispanic employees both in career outcomes and in peer effects. Black employees experience by far the largest turnover and lowest promotion rates at the earliest stage of their career. In contrast, in this context, Hispanic employees' turnover and promotion rates are indistinguishable from those of White employees. Further, while Asian employees do experience larger turnover and lower promotion rates than their White counterparts, the Asian-White turnover and promotion gaps are substantively different from the corresponding Black-White gaps. Strikingly, Black employees are the only numerical minority group to experience a negative impact of White coworkers on their turnover and promotion. In short, a one-size-fits-all approach to understanding inequalities in career attainment for employees of color obscures different patterns of experiences or renders those experiences invisible. The color line in elite firms continues to limit Black, but not Asian or Hispanic, women and men who show stronger evidence of assimilating into elite majority White workplaces. Finally, our findings contribute directly to the practice of managing diversity in elite firms. We are not the first to show that race shapes routine daily interactions at work. Yet we point to the critical role of seemingly neutral organizational staffing practices in determining how these daily interactions differentially affect Black employees. Creating a staffing and recognition system that depends on informal networks by design may strengthen whether and how coworkers shape potentially costly firm outcomes, such as turnover and promotion rates. Yet it would be reckless to conclude from this evidence that racial segregation engenders career benefits for Black employees. Rather, in a world with asymmetric peer effects, our qualitative research points to the negative consequences of placing informal networking and relationship building at the center of career advancement systems.

Notwithstanding its contributions, this research has several notable limitations. First, although we leverage exogenous assignment of newly hired employees to teams, supporting a causal interpretation of peer effects, the possibility remains that unobservable factors shape why some teams have higher shares of White coworkers, which may independently influence newly hired employees' outcomes. Future experimental research designs employing random assignment of people to teams and teams to projects could resolve this issue. Second, we study a single company in the professional services industry, which limits the generalizability of our findings. Although there are compelling theoretical reasons why Black, Asian, and Hispanic employees' experiences in high-wage jobs should generalize to other organizational contexts, we expect our findings to be most applicable to other

knowledge-worker settings where informal networks are central to career success. Future research can explore the extent to which our findings generalize to other firm contexts, such as globally distributed teams or fully-remote firms. Last, while we posit potential mechanisms through which coworkers affect Black employees' turnover, we cannot adjudicate between voluntary and involuntary turnover, nor can we follow new hires after they leave the firm. Thus, we are also limited in our understanding of what other labor market opportunities may co-occur with turnover at one firm. Future research studies of fine-grained longitudinal data across firms, such as communication data, can help identify precise mechanisms that would expand our understanding of truly voluntary and involuntary career outcomes.

Retaining Black employees in elite jobs is as important as recruiting them. Our evidence suggests that addressing potentially exclusionary interactional dynamics between the numerical majority group, White women and men, and Black employees may help address the retention and promotion gaps between these two groups.

References

Abraham M (2017) Pay formalization revisited: Considering the effects of manager gender and discretion on closing the gender wage gap. *Acad. Manage. J.* 60(1):29–54.

Abraham M, Burbano V (2021) Congruence between leadership gender and organizational claims affects the gender composition of the applicant pool: Field experimental evidence. *Organ. Sci.* 33(1):393–413.

Acker J (1990) Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender Soc.* 4(2):139–158.

Agan A, Starr S (2018) Ban the box, criminal records, and racial discrimination: A field experiment. *Quart. J. Econom.* 133(1):191–235.

Allport GW (1954) *The Nature of Prejudice* (Reading, MA: Addison-Wesley).

Anderson-Gough F, Grey C, Robson K (2000) In the name of the client: The service ethic in two professional services firms. *Human Relations* 53(9):1151–1174.

Bandura A (1994) *Self-efficacy*, volume 4, 71–81 (New York: Academic Press).

Baumeister RF, Leary MR (1995) The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psych. Bull.* 117(3):497–529.

Becker GS (2009) *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education* (Chicago: University of Chicago Press).

Behaghel L, Crépon B, Le Barbanchon T (2015) Unintended effects of anonymous résumés. *J. Appl. Econ.* 7(3):1–27.

Bell Smith EL, Nkomo SM (2003) *Our Separate Ways: Black and White Women and the Struggle for Professional Identity* (Cambridge: Harvard Business Press).

Berdahl JL, Moore C (2006) Workplace harassment: Double jeopardy for minority women. *J. Appl. Psych.* 91(2):426–436.

Berger J, Fisek MH, Norman RZ, Zelditch M Jr (1977) *Status Characteristics and Social Interaction: An Expectation-States Approach* (New York: Elsevier Scientific Publishing Co.).

Bergsieker HB, Shelton JN, Richeson JA (2010) To be liked versus respected: Divergent goals in interracial interactions. *J. Personality Soc. Psych.* 99(2):248–264.

Blalock HM Jr (1967) *Toward a Theory of Minority-Group Relations* (New York: John Wiley & Sons).

Blau PM (1977) *Inequality and Heterogeneity: A Primitive Theory of Social Structure*, volume 7 (New York: Free Press).

Blumer H (1958) Race prejudice as a sense of group position. *Pac. Sociol. Rev.* 1(1):3–7.

Bobo LD (1999) Prejudice as group position: Microfoundations of a sociological approach to racism and race relations. *J. Soc. Issues* 55(3):445–472.

Bohnet I, van Geen A, Bazerman M (2016) When performance trumps gender bias: Joint versus separate evaluation. *Management Sci.* 62(5):1225–1234.

Bonilla-Silva E (2017) *Racism Without Racists: Color-Blind Racism and the Persistence of Racial Inequality in America* (Lanham, MD: Rowman & Littlefield Publishers).

Bonilla-Silva E, Glover KS (2004) We are all Americans!: The Latin Americanization of race relations in the United States. Krysan M, Lewis AE, eds., *The Changing Terrain of Race and Ethnicity*, 149–183 (New York: Russell Sage Foundation).

Bordalo P, Coffman K, Gennaioli N, Shleifer A (2019) Beliefs about gender. *Amer. Econom. Rev.* 109(3):739–773.

Bourdieu P, Wacquant L (1999) On the cunning of imperialist reason. *Theory Cult. Soc.* 16(1):41–58.

Briscoe F, Kellogg KC (2011) The initial assignment effect: Local employer practices and positive career outcomes for work-family program users. *Amer. Sociol. Rev.* 76(2):291–319.

Brondolo E, Kelly KP, Coakley V, Gordon T, Thompson S, Levy E, Cassells A, Tobin JN, Sweeney M, Contrada RJ (2006) The perceived ethnic discrimination questionnaire: Development and preliminary validation of a community version. *J. Appl. Soc. Psych.* 35(2):335–365.

Byrne DE (1971) *The Attraction Paradigm* (New York: Academic Press).

Castilla E, Rho HJ (2021) The gendering of job postings in the online recruitment process.

Castilla EJ (2011) Bringing managers back in: Managerial influences on workplace inequality. *Amer. Sociol. Rev.* 76(5):667–694.

Chang EH, Kirgios EL, Rai A, Milkman KL (2020) The isolated choice effect and its implications for gender diversity in organizations. *Manage. Sci.* 66(6):2752–2761.

Chavez L (2013) *The Latino Threat: Constructing Immigrants, Citizens, and the Nation* (Redwood City: Stanford University Press).

Chetty R, Friedman JN, Saez E, Turner N, Yagan D (2020) Income segregation and intergenerational mobility across colleges in the United States. *Q. J. Econ.* 135(3):1567–1633.

Citrin J, Sears DO (2014) *American Identity and the Politics of Multiculturalism* (Cambridge: Cambridge University Press).

Cohen LE, Broschak JP, Haveman HA (1998) And then there were more? the effect of organizational sex composition on the hiring and promotion of managers. *Am. Sociol. Rev.* 63(5):711–727.

Cornelissen T, Dustmann C, Schönberg U (2017) Peer effects in the workplace. *Amer. Econom. Rev* 107(2):425–456.

Cox DR (1975) Partial likelihood. *Biometrika* 62(2):269–276.

Crenshaw K (1989) Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *Univ. Chi. Leg. Forum* 1989(1):139–167.

Cross RL, Parker A (2004) *The Hidden Power of Social Networks: Understanding how Work Really Gets Done in Organizations* (Cambridge: Harvard Business Press).

Davenport TH, Thomas RJ, Cantrell S (2002) The mysterious art and science of knowledge-worker performance. *MIT Sloan Management Rev.* 44(1):23–30.

Deloitte, LLP (2019) Missing pieces report: The 2018 board diversity census of women and minorities on fortune 500 boards. Technical report, Deloitte, LLP.

Derenoncourt E, Kim CH, Kuhn M, Schularick M (2022) Wealth of two nations: The U.S. racial wealth gap, 1860-2020.

Elvira MM, Cohen LE (2001) Location matters: A cross-level analysis of the effects of organizational sex composition on turnover. *Acad. Management J.* 44(3):591–605.

Exley CL, Kessler JB (2022) The gender gap in self-promotion. *Q. J. Econ.* 1–37.

Falk A, Ichino A (2006) Clean evidence on peer effects. *J. Labor Econon.* 24(1):39–57.

Feld J, Zölitz U (2022) The effect of higher-achieving peers on major choices and labor market outcomes. *J. Econom. Behav. Organ.* 196:200–219.

Fernandez RM, Fernandez-Mateo I (2006) Networks, race, and hiring. *Am. Sociol. Rev.* 71(1):42–71.

Foschi M (1996) Double standards in the evaluation of men and women. *Soc. Psych. Quart.* 59(3):237–254.

Gardner HK (2012) Performance pressure as a double-edged sword: Enhancing team motivation but undermining the use of team knowledge. *Admin. Sci. Quart.* 57(1):1–46.

Gilson RJ, Mnookin RH (1985) Sharing among the human capitalists: An economic inquiry into the corporate law firm and how partners split profits. *Stanford Law Rev.* 37(2):313–392.

Giuliano L, Levine DI, Leonard J (2011) Racial bias in the manager-employee relationship: An analysis of quits, dismissals, and promotions at a large retail firm. *J. Hum. Resour.* 46(1):26–52.

Glover D, Pallais A, Pariente W (2017) Discrimination as a self-fulfilling prophecy: Evidence from french grocery stores. *Quart. J. Econom.* 132(3):1219–1260.

Goldin C, Rouse C (2000) Orchestrating impartiality: The impact of "blind" auditions on female musicians. *Am. Econ. Rev.* 90(4):715–741.

Golsteyn BHH, Non A, Zölitz U (2021) The impact of peer personality on academic achievement. *J. Polit. Econ.* 129(4):1052–1099.

Hall EV, Hall AV, Galinsky AD, Phillips KW (2019) MOSAIC: A model of stereotyping through associated and intersectional categories. *Acad. Manag. Rev.* 44(3):643–672.

Hancock B, Williams M, Manyika J, Yee L, Wong J (2021) Race in the workplace: The black experience in the US private sector. Technical report, McKinsey.

Hewlett SA, Luce CB (2006) Extreme jobs: The dangerous allure of the 70-hour workweek. *Harv. Bus. Rev.* 84(12):49–59, 162.

Hoxby C (2000) Peer effects in the classroom: Learning from gender and race variation.

Hurtado A (1989) Relating to privilege: Seduction and rejection in the subordination of white women and women of color. *Signs: J. of Women in Culture & Soc.* 14(4):833–855.

Ibarra H (1993) Personal networks of women and minorities in management: A conceptual framework. *Acad. Manag. Rev.* 18(1):56–87.

Jackson SE, Brett JF, Sessa VI, Cooper DM, Julin JA, Peyronnin K (1991) Some differences make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and turnover. *J. Appl. Psychol.* 76(5):675–689.

Kahn C, Huberman G (1988) Two-sided uncertainty and "up-or-out" contracts. *J. Labor Econ.* 6(4):423–444.

Kanter RM (1977) *Men and Women of the Corporation* (New York: Basic Books).

Kao G (1995) Asian Americans as model minorities? A look at their academic performance. *Am. J. Educ.* 103(2):121–159.

Kaur S, Kremer M, Mullainathan S (2010) Self-control and the development of work arrangements. *Am. Econ. Rev.* 100(2):624–628.

Kim CJ (1999) The racial triangulation of asian americans. *Polit. Soc.* 27(1):105–138.

Landrine H, Klonoff EA, Corral I, Fernandez S, Roesch S (2006) Conceptualizing and measuring ethnic discrimination in health research. *J. Behav. Med.* 29(1):79–94.

Leonard JS, Levine DI (2006) The effect of diversity on turnover: A large case study. *ILR Rev.* 59(4):547–572.

Mannix E, Neale MA (2005) What differences make a difference? The promise and reality of diverse teams in organizations. *Psychol. Sci.* 6(2):31–55.

Manski CF (1993) Identification of endogenous social effects: The reflection problem. *Rev. Econ. Stud.* 60(3):531–542.

Marquis C, Tilcsik A (2013) Imprinting: Toward a multilevel theory. *Acad. Management Annals* 7(1):195–245.

Mas A, Moretti E (2009) Peers at work. *Am. Econ. Rev.* 99(1):112–145.

Mas A, Pallais A (2017) Valuing alternative work arrangements. *Am. Econ. Rev.* 107(12):3722–3759.

McClain PD, Carter NM, DeFrancesco Soto VM, Lyle ML, Grynaviski JD, Nunnally SC, Scotto TJ, Kendrick JA, Lackey GF, Cotton KD (2006) Racial distancing in a Southern city: Latino immigrants' views of black Americans. *J. Polit.* 68(3):571–584.

McFeely S, Wigert B (2019) This fixable problem costs U.S. businesses $1 trillion. Gallup Research.

McGinn KL, Milkman KL (2013) Looking up and looking out: Career mobility effects of demographic similarity among professionals. *Org. Sci.* 24(4):1041–1060.

McGrady PB, Reynolds JR (2012) Racial mismatch in the classroom: Beyond Black-White differences. *Sociol. Educ.* 86(1):3–17.

McPherson M, Smith-Lovin L, Cook JM (2001) Birds of a feather: Homophily in social networks. *Annu. Rev. Sociol.* 27(1):415–444.

Nishii LH (2012) The benefits of climate for inclusion for gender-diverse groups. *Acad. Management J.* 56(6):1754–1774.

Okamoto D, Cristina Mora G (2014) Panethnicity. *Annu. Rev. Sociol.* 40:219–239.

Omi M, Winant H (2018) *Racial Formation in the United States: From the 1960s to the 1990s* (New York: Routledge).

O'Reilly CA, Caldwell DF, Barnett WP (1989) Work group demography, social integration, and turnover. *Adm. Sci. Q.* 34(1):21–37.

Park JZ, Martinez BC, Cobb R, Park JJ, Wong ER (2015) Exceptional outgroup stereotypes and White racial inequality attitudes toward Asian Americans. *Soc. Psychol. Q.* 78(4):399–411.

Petsko CD, Bodenhausen GV (2019) Racial stereotyping of gay men: Can a minority sexual orientation erase race? *J. Exp. Soc. Psychol.* 83:37–54.

Purdie-Vaughns V, Eibach RP (2008) Intersectional invisibility: The distinctive advantages and disadvantages of multiple subordinate-group identities. *Sex Roles* 59(5-6):377–391.

Ray V (2019) A theory of racialized organizations. *Amer. Sociol. Rev.* 84(1):26–53.

Ridgeway CL, Smith-Lovin L (1999) The gender system and interaction. *Annu. Rev. Sociol.* 25(1):191–216.

Riordan CM, Shore LM (1997) Demographic diversity and employee attitudes: An empirical examination of relational demography within work units. *J. Appl. Psychol.* 82(3):342–358.

Rothstein J (2021) The lost generation? Labor market outcomes for post great recession entrants. *J. Hum. Resour.* Forthcoming.

Saez E (2008) Striking it richer: The evolution of top incomes in the United States. *Pathways Magazine* 6–7.

Sears DO (2015) The American color line and black exceptionalism. Forgas JP, Fiedler K, Crano WD, eds., *Social Psychology and Politics*, 337–352 (Psychology Press).

Sears DO, Savalei V (2006) The political color line in America: Many "peoples of color" or black exceptionalism? *Political Psych.* 27(6):895–924.

Settles IH (2006) Use of an intersectional framework to understand black women's racial and gender identities. *Sex Roles* 54(9-10):589–601.

Sherer PD (1995) Leveraging human assets in law firms: Human capital structures and organizational capabilities. *Indust. Labor Relat. Rev.* 48(4):671–691.

Sherer PD, Lee K (2002) Institutional change in large law firms: A resource dependency and institutional perspective. *Acad. Management J.* 45(1):102–119.

Smith SS (2005) "Don't put my name on it": Social capital activation and job-finding assistance among the black urban poor. *Amer. J. Sociol.* 111(1):1–57.

Sørensen JB (2004) The organizational demography of racial employment segregation. *Amer. J. Sociol.* 110(3):626–671.

Srivastava SB, Sherman EL (2015) Agents of change or cogs in the machine? Reexamining the influence of female managers on the gender wage gap. *Amer. J. Sociol.* 120(6):1778–1808.

Sterling AD (2022) This is why I leave: Race and voluntary departure.

Suddaby R, Greenwood R (2001) Colonizing knowledge: Commodification as a dynamic of jurisdictional expansion in professional service firms. *Human Relations* 54(7):933–953.

Tajfel H, Turner JC (2004) The social identity theory of intergroup behavior. Jost JT, Sidanius JH, eds., *Political Psychology: Key Readings*, volume 497, 276–293 (New York, NY: Psychology Press).

Tilcsik A (2014) Imprint–environment fit and performance: How organizational munificence at the time of hire affects subsequent job performance. *Admin. Sci. Quart.* 59(4):639–668.

Tilly C (1998) *Durable Inequality* (Berkeley, CA: University of California Press).

Tomaskovic-Devey D, Avent-Holt D (2019) *Relational Inequalities: An Organizational Approach* (Oxford: Oxford University Press).

Tsui AS, O'Reilly CA (1989) Beyond simple demographic effects: The importance of relational demography in Superior-Subordinate dyads. *Acad. Management J.* 32(2):402–423.

Turco CJ (2010) Cultural foundations of tokenism: Evidence from the leveraged buyout industry. *Amer. Sociol. Rev.* 75(6):894–913.

von Nordenflycht A (2010) What is a professional service firm? Toward a theory and taxonomy of knowledge-intensive firms. *Acad. Managment Rev.* 35(1):155–174.

Wingfield AH (2010) Are some emotions marked "whites only"? Racialized feeling rules in professional workplaces. *Soc. Probl.* 57(2):251–268.

Wingfield AH, Alston RS (2014) Maintaining hierarchies in predominantly white organizations: A theory of racial tasks. *Amer. Behav. Sci.* 58(2):274–287.

Yi J, Todd NR (2021) Internalized model minority myth among Asian Americans: Links to anti-Black attitudes and opposition to affirmative action. *Cultur. Divers. Ethnic Minor. Psych.* 27(4):569–578.

Zatzick CD, Elvira MM, Cohen LE (2003) When is more better? The effects of racial composition on voluntary turnover. *Organ. Sci.* 14(5):483–496.

Zenger TR, Lawrence BS (1989) Organizational demography: The differential effects of age and tenure distributions on technical communication. *Acad. Management J.* 32(2):353–376.

Zou LX, Cheryan S (2017) Two axes of subordination: A new model of racial position. *J. Personality Soc. Psych.* 112(5):696–717.

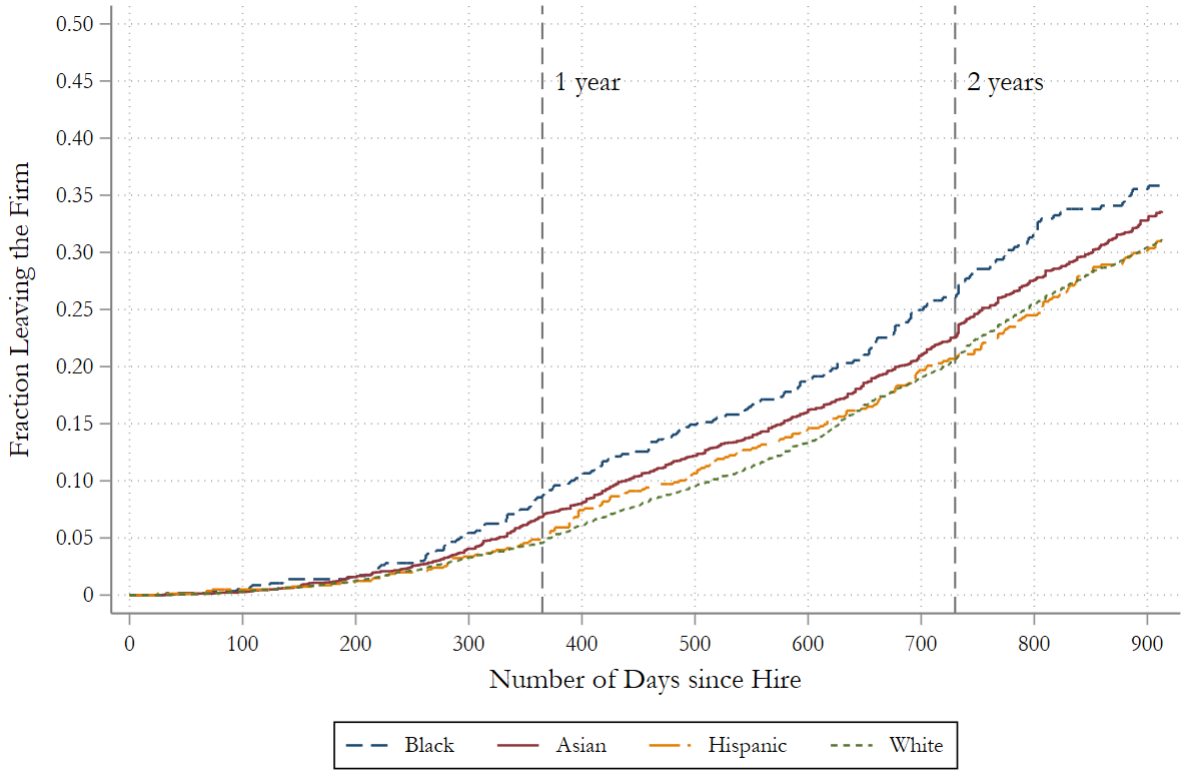
Figures

Figure I: Share of Employees by Race and Job Level



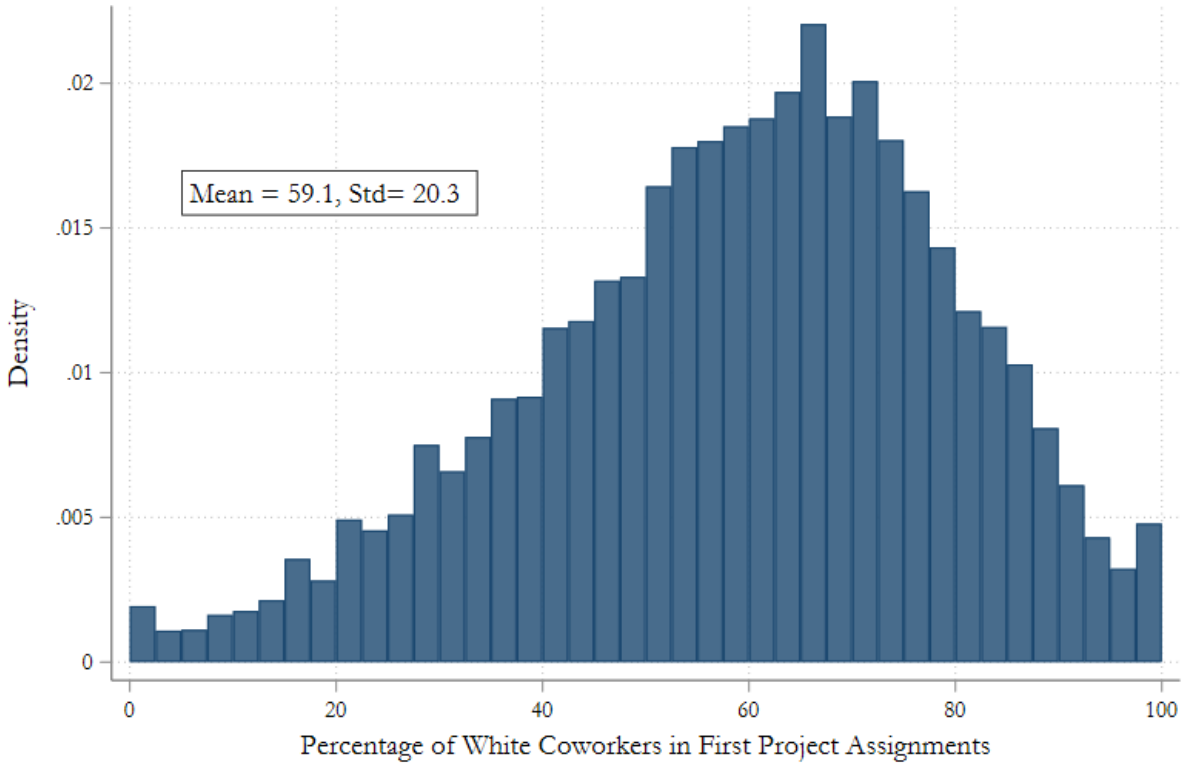
Notes. Using the full sample of more than 50,000 U.S. employees, this figure plots the racial composition, i.e. the share of employees of each race, at three levels of seniority: *Professionals*, *Middle Management* and *Top Management*; which respectively represent approximately half, one-third, and less than ten percent of the total workforce at the firm. The remaining workforce comprises of interns and services staff who are not included in the analysis. The figure illustrates the increasing racial stratification at the firm along the job ladder. For instance, White employees represent only half of Professionals, but more than eighty percent of the Top Management.

Figure II: Kaplan Meier Failure Estimates, by New Hire Race



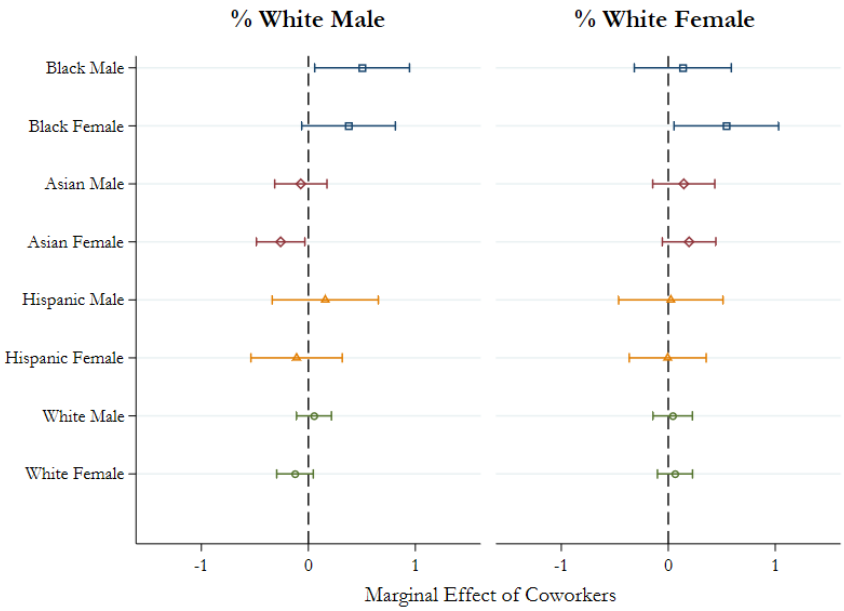
Notes. This figure shows the estimated Kaplan–Meier failure curves for all 11,776 new hires, separately for each race. The y-axis represents the cumulative fraction of employees that have left the firm at a given point in time. The x-axis depicts the number of days since the hiring date.

Figure III: Distribution of the Share of White Coworkers

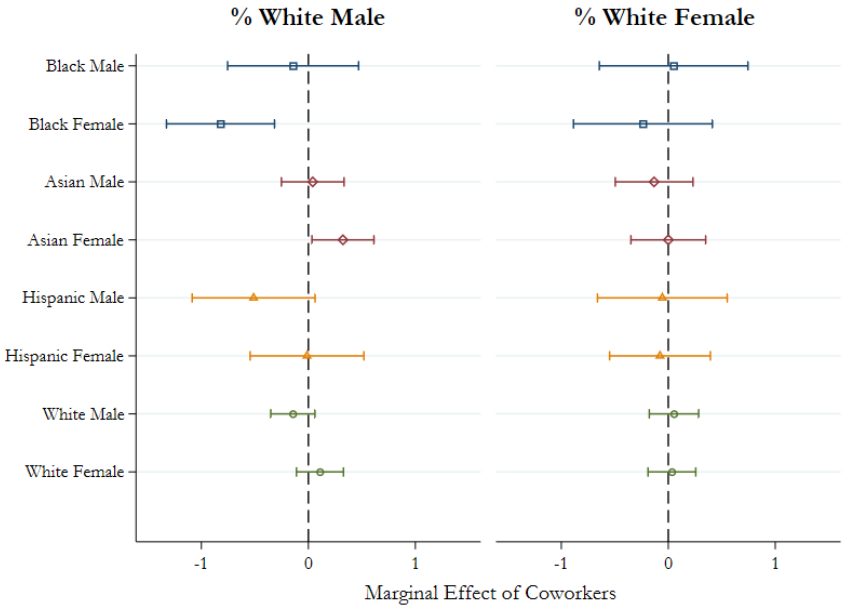


Notes. This figure shows the distribution of a focal employee's share of White coworkers in their first project assignments.

Figure IV: Marginal Effect of White Coworkers



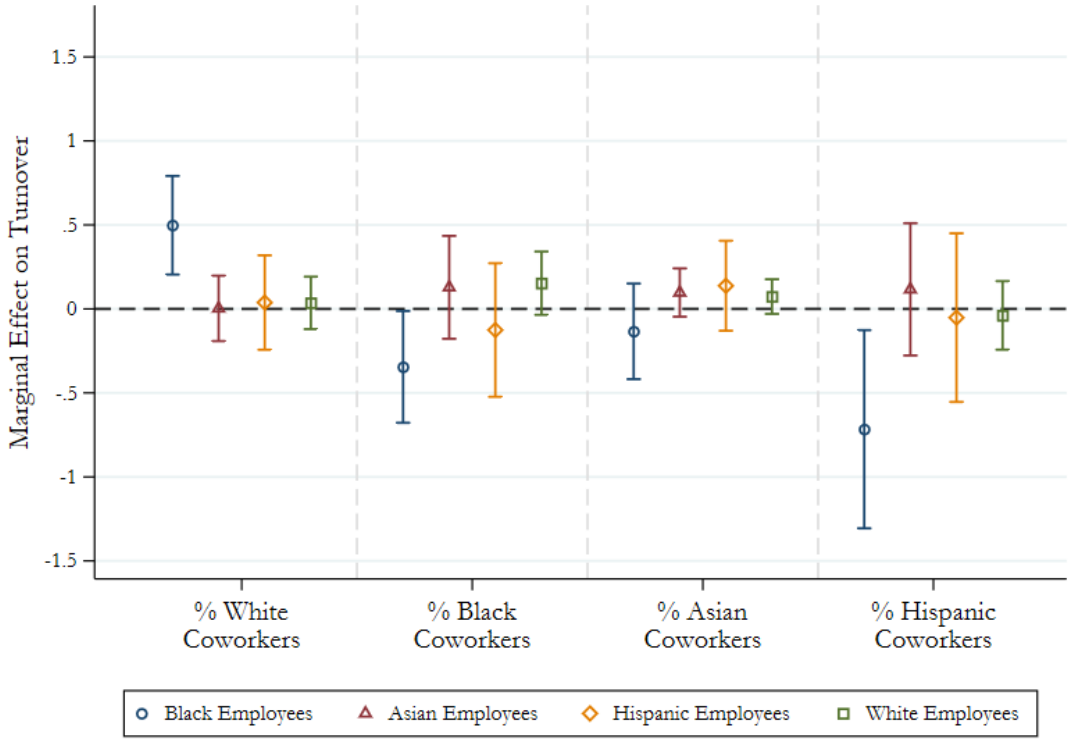
(a) Turnover



(b) Promotion

Notes. This figure separates out the effect of having more White male (on the left) or White female (on the right) coworkers on turnover and promotion. The specification in Panel (a) is the same as in Table V Column 3, except we interact, respectively, with share White male and share White female, instead of share White, and we control for the other race shares separately by gender as well. Similarly, the specification in Panel (b) is the same as in Table VI Column 3, except we interact, respectively, with share White male and share White female, instead of share White, and we control for the other race shares separately by gender as well. Standard errors are clustered at the office and year of hire level. 95% confidence intervals are reported.

Figure V: Asymmetric Effect of Coworkers on Employees' Turnover



Notes. This figure shows the effect of White, Black, Asian and Hispanic coworkers on the turnover of new hires, by race. The figure plots interaction coefficients from separate models that vary coworkers' racial composition on employees' turnover. For instance, the first four coefficients (to the left of the graph) correspond to Table V coefficients on the two-way interaction between the share of White coworkers and, respectively, Black, Asian, Hispanic, and White employees. The next four correspond to a specification where we replace White coworkers with Black coworkers, otherwise keeping the same specification as in Table V. 95% confidence intervals are reported.

Tables

Table I: Employee and Project Summary Statistics

Panel A: Sample Size

	Total
Number of Employees	>50,000
Number of New Hires	11,776
Time Span	2014-2020

Panel B: New Hires Summary Statistics

	Mean	Sd	Median	P25	P75
Age at Hire	24	3	23	22	24
Share in Top 20 U.S. Schools	0.12	0.33			
Share in Top 21-100 U.S. Schools	0.23	0.42			
Share with a Masters Degree	0.34	0.47			
Share with a Specialized Degree	0.07	0.26			

Panel C: Project Summary Statistics

	Mean	Sd	Median	P25	P75
Number of Projects per Month	5	7	3	2	6
Number of Coworkers per Project	18	18	12	5	26
Number of Months per Project	10	8	8	5	12
Number of Hours per Project	174	374	35	7	176
Share of Priority Projects	0.56				
Share of Billable Hours	0.63	0.38	0.74	0.25	1.00

Notes. **Panel A** of this table displays the number of employees, the number of new hires, and the time span of the data. **Panel B** displays new hires' age and education characteristics. **Panel C** displays statistics, at the employee level, about the projects initially assigned to new hires. *Number of months per project* corresponds to the number of distinct months the new hire worked on average on each "first" project. *The share of priority projects* is the share of projects classified as priority over the total number of first assignments, weighted by the number of hours the new hire spent on each project. *The share of billable hours* represents the share of hours that are billable to the client over total hours that the new hire spent on first assignments.

Table II: Test of Random Assignment

Panel A: Employee Race and Gender

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Black Female	Black Male	Asian Female	Asian Male	Hispanic Female	Hispanic Male	White Female	White Male
% White Coworkers	-0.017	-0.040	0.028	-0.053	0.013	0.020	0.019	0.029
	(0.026)	(0.027)	(0.054)	(0.052)	(0.035)	(0.029)	(0.062)	(0.070)
% Black Coworkers	0.047	0.027	0.078	-0.091	0.007	-0.025	0.019	-0.063
	(0.037)	(0.046)	(0.069)	(0.067)	(0.043)	(0.041)	(0.086)	(0.096)
% Asian Coworkers	-0.001	-0.036	0.140**	0.055	-0.019	-0.024	-0.079	-0.036
	(0.024)	(0.028)	(0.056)	(0.056)	(0.035)	(0.029)	(0.064)	(0.071)

Panel B: Additional Employee Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)
	Master Degree	Technical Master	Top 20 School	Top 20-100 School	Top 100-1000	Age
% White Coworkers	-0.039	0.008	0.038	0.064	-0.038	-0.234
	(0.054)	(0.026)	(0.033)	(0.053)	(0.053)	(0.356)
% Black Coworkers	-0.055	0.032	0.024	-0.017	0.022	-0.005
	(0.063)	(0.029)	(0.047)	(0.079)	(0.071)	(0.570)
% Asian Coworkers	-0.018	0.009	0.037	0.037	-0.051	0.212
	(0.054)	(0.026)	(0.035)	(0.052)	(0.053)	(0.346)

Panel C: Project Characteristics

	(1)	(2)	(3)	(4)
	Top Priority	Second Priority	Third Priority	Fourth Priority
% White Coworkers	0.032	0.014	-0.008	0.004
	(0.027)	(0.023)	(0.015)	(0.009)
% Black Coworkers	0.013	0.015	-0.016	0.012
	(0.035)	(0.031)	(0.018)	(0.011)
% Asian Coworkers	0.024	0.001	-0.009	0.005
	(0.029)	(0.023)	(0.016)	(0.009)
Individual controls				
Office × Year FE	X	X	X	X
Nb. obs	11776	11776	11776	11776

Notes. **Panel A** presents OLS estimates of a linear model where we regress the employee's own race and gender on their coworkers' race. **Panel B** presents OLS estimates of a linear model where we regress employee's characteristics on their coworkers' race. **Panel C** presents OLS estimates of a linear model where we regress project rank on their coworkers' race. All specifications include office-year fixed effects. Standard errors are clustered at the office-year level.

Table III: The Race and Gender Turnover Gap

	OLS			Cox		
	(1)	(2)	(3)	(4)	(5)	(6)
Black	0.074***	0.076***	0.114***	1.251**	1.252**	1.315*
	(0.027)	(0.027)	(0.035)	(0.128)	(0.128)	(0.202)
Asian	0.027*	0.034**	0.043**	1.121**	1.151***	1.230***
	(0.014)	(0.014)	(0.019)	(0.060)	(0.062)	(0.091)
Hispanic	-0.011	-0.009	0.008	0.986	0.993	1.157
	(0.024)	(0.024)	(0.035)	(0.088)	(0.088)	(0.155)
Male		0.039***	0.049***		1.187***	1.256***
		(0.011)	(0.014)		(0.052)	(0.071)
Black × Male			-0.071			0.919
			(0.048)			(0.185)
Asian × Male			-0.017			0.883
			(0.025)			(0.087)
Hispanic × Male			-0.029			0.771
			(0.047)			(0.135)
White Mean Turnover	0.211	0.211		0.211	0.211	
White Female Mean Turnover			0.172			0.172
Individual controls	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X
Nb. obs	7617	7617	7617	11776	11776	11776

Notes. This table presents OLS estimates (Columns 1-3) of a model where we regress a dummy that equals one if an employee left the company within two years of their hire on their own race (Column 1) and gender (Column 2), interacted (Column 3). Individual controls and office-year fixed effects are included. Individual controls are age of employee, a dummy for whether the employee has a masters, a dummy for whether the employee has a specialized masters, a categorical variable of university ranking (top 20, top 21-100, top 101-1000 and beyond top 1000), the average number of colleagues across all first project assignments, a month of hire fixed effect (1-12) and, finally, whether the new hire was initially assigned at least one priority project. Continuous predictors are mean centered. Columns 4, 5 and 6 present Hazard ratios from Cox proportional hazard models, stratified by office-year. Individual controls are respectively the same as for Column 1, 2 and 3. All standard errors are clustered at the office-year level and reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table IV: The Race and Gender Promotion Gap

	OLS			Cox		
	(1)	(2)	(3)	(4)	(5)	(6)
Black	-0.164***	-0.165***	-0.209***	0.739***	0.739***	0.722**
	(0.033)	(0.033)	(0.046)	(0.070)	(0.070)	(0.098)
Asian	-0.036**	-0.043**	-0.062***	0.948	0.935	0.912
	(0.018)	(0.018)	(0.023)	(0.045)	(0.045)	(0.058)
Hispanic	0.021	0.019	0.001	1.022	1.015	0.995
	(0.029)	(0.029)	(0.041)	(0.080)	(0.079)	(0.111)
Male		-0.047***	-0.063***		0.913**	0.898**
		(0.014)	(0.017)		(0.035)	(0.042)
Black × Male			0.084			1.046
			(0.064)			(0.195)
Asian × Male			0.036			1.053
			(0.032)			(0.092)
Hispanic × Male			0.032			1.037
			(0.057)			(0.156)
White Mean Promotion	0.676	0.676		0.676	0.676	
White Female Mean Promotion			0.729			0.729
Individual controls	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X
Nb. obs	7351	7351	7351	11776	11776	11776

Notes. This table presents OLS estimates (Columns 1-3) of a model where we regress a dummy that equals one if an employee is promoted within two years and a half of their hire on their own race (Column 1) and gender (Column 2), interacted (Column 3). Individual controls and office-year fixed effects are included. Individual controls are age of employee, a dummy for whether the employee has a masters, a dummy for whether the employee has a specialized masters, a categorical variable of university ranking (top 20, top 21-100, top 101-1000 and beyond top 1000), the average number of colleagues across all first project assignments, a month of hire fixed effect (1-12) and, finally, whether the new hire was initially assigned at least one priority project. Continuous predictors are mean centered. Columns 4, 5 and 6 present Hazard ratios from Cox proportional hazard models, stratified by office-year. Individual controls are respectively the same as for Column 1, 2 and 3. All standard errors are clustered at the office-year level and reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table V: The Effect of First Team Race Composition on Turnover, by Race and Gender

	OLS			Cox		
	(1)	(2)	(3)	(4)	(5)	(6)
Black	0.081***	0.083***	0.118***	1.246**	1.248**	1.246
	(0.027)	(0.027)	(0.035)	(0.129)	(0.129)	(0.195)
Asian	0.024	0.030**	0.039*	1.106*	1.136**	1.189**
	(0.015)	(0.015)	(0.020)	(0.060)	(0.062)	(0.090)
Hispanic	-0.011	-0.008	-0.001	0.995	1.003	1.116
	(0.024)	(0.024)	(0.035)	(0.090)	(0.090)	(0.153)
Male		0.039***	0.046***		1.191***	1.236***
		(0.011)	(0.014)		(0.052)	(0.071)
Black × Male			-0.065			1.000
			(0.049)			(0.204)
Asian × Male			-0.017			0.916
			(0.027)			(0.093)
Hispanic × Male			-0.015			0.824
			(0.047)			(0.146)
% White Coworkers	0.032	0.036	-0.030	1.004	1.004	1.000
	(0.079)	(0.080)	(0.092)	(0.003)	(0.003)	(0.004)
Male × % White Coworkers			0.112			1.005*
			(0.076)			(0.003)
Black × % White Coworkers	0.462***	0.462***	0.602***	1.018***	1.019***	1.025***
	(0.132)	(0.132)	(0.176)	(0.006)	(0.006)	(0.009)
Asian × % White Coworkers	-0.033	-0.033	0.002	0.999	0.999	0.998
	(0.076)	(0.076)	(0.098)	(0.003)	(0.003)	(0.004)
Hispanic × % White Coworkers	0.005	0.002	-0.026	1.000	0.999	1.005
	(0.131)	(0.130)	(0.184)	(0.005)	(0.005)	(0.007)
Black × Male × % White Coworkers			-0.265			0.990
			(0.273)			(0.012)
Asian × Male × % White Coworkers			-0.035			1.003
			(0.132)			(0.005)
Hispanic × Male × % White Coworkers			0.055			0.990
			(0.238)			(0.009)
White Mean Turnover	0.211	0.211		0.211	0.211	
White Female Mean Turnover			0.172			0.172
Individual controls	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X
Manager interaction	X	X	X	X	X	X
Nb. obs	7617	7617	7617	11776	11776	11776

Notes. This table presents OLS estimates (Columns 1-2) of a model where we regress a dummy that equals one if an employee left the company within two years of their hire on their own race (Column 1) and gender (Column 2) interacted with the share of White coworkers in their initial project assignments. Columns 3 presents the three-way interaction between an employee's race, gender and the share of White coworkers in their initial project assignments. Individual controls are the same as in table III and office-year fixed effects are included. In addition, we control for the share of Asian, Black, and female coworkers in first project assignments as well as White, Black, Asian, and female in the employee's first project assignments. The share of White managers is further interacted with the employee's own race (in Columns 1 and 2), as well as gender (in Column 3). Continuous predictors are mean centered. Columns 4, 5 and 6 present Hazard ratios from Cox proportional hazard models, stratified by office-year. Individual controls are respectively the same as for Columns 1, 2 and 3. Standard errors are clustered at the office-year level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table VI: The Effect of First Team Race Composition on Promotion, by Race and Gender

	OLS			Cox		
	(1)	(2)	(3)	(4)	(5)	(6)
Black	-0.164***	-0.164***	-0.200***	0.736***	0.736***	0.718**
	(0.033)	(0.033)	(0.044)	(0.070)	(0.070)	(0.099)
Asian	-0.031*	-0.038**	-0.052**	0.954	0.941	0.923
	(0.018)	(0.018)	(0.024)	(0.046)	(0.046)	(0.060)
Hispanic	0.022	0.020	0.009	1.022	1.016	1.009
	(0.029)	(0.029)	(0.041)	(0.080)	(0.080)	(0.113)
Male		-0.048***	-0.057***		0.912**	0.904**
		(0.014)	(0.017)		(0.035)	(0.043)
Black × Male			0.071			1.051
			(0.063)			(0.199)
Asian × Male			0.027			1.042
			(0.034)			(0.095)
Hispanic × Male			0.020			1.009
			(0.057)			(0.154)
% White Coworkers	0.018	0.011	0.108	1.000	1.000	1.001
	(0.096)	(0.096)	(0.107)	(0.003)	(0.003)	(0.003)
Male × % White Coworkers			-0.169*			0.997
			(0.091)			(0.003)
Black × % White Coworkers	-0.351*	-0.360*	-0.708***	0.995	0.995	0.987*
	(0.193)	(0.192)	(0.204)	(0.005)	(0.005)	(0.007)
Asian × % White Coworkers	0.097	0.096	0.099	1.002	1.002	1.002
	(0.089)	(0.089)	(0.122)	(0.003)	(0.003)	(0.003)
Hispanic × % White Coworkers	-0.202	-0.198	-0.181	0.999	0.999	1.000
	(0.148)	(0.147)	(0.211)	(0.004)	(0.004)	(0.006)
Black × Male × % White Coworkers			0.684**			1.016
			(0.333)			(0.011)
Asian × Male × % White Coworkers			-0.061			0.999
			(0.162)			(0.005)
Hispanic × Male × % White Coworkers			-0.027			1.000
			(0.276)			(0.008)
White Mean Promotion	0.676	0.676		0.676	0.676	
White Female Mean Promotion			0.729			0.729
Individual controls	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X
Manager interaction	X	X	X	X	X	X
Nb. obs	7351	7351	7351	11776	11776	11776

Notes. This table presents OLS estimates (Columns 1-2) of a model where we regress a dummy that equals one if an employee is promoted within two years and a half of their hire on their own race (Column 1) and gender (Column 2) interacted with the share of White coworkers in their initial project assignments. Columns 3 presents the three-way interaction between an employee's race, gender and the share of White coworkers in their initial project assignments. Individual controls are the same as in table IV and office-year fixed effects are included. In addition, we control for the share of Asian, Black, and female coworkers in first project assignments as well as the share of managers who are White, Black, Asian, and female in the employee's first project assignments, interacted with the employee's own race (in Columns 1 and 2), as well as gender (in Column 3). Continuous predictors are mean centered. Columns 4, 5 and 6 present Hazard ratios from Cox proportional hazard models, stratified by office-year. Individual controls are respectively the same as for Columns 1, 2 and 3. Standard errors are clustered at the office-year level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

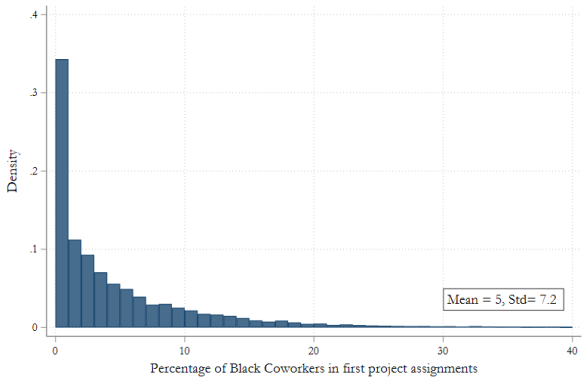
Table VII: Mechanisms

	Monthly Hours		Monthly Billable Hours		Share of Priority Projects		Low Performance	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-6.985***	-6.711***	-10.605***	-8.233***	-2.546**	-1.817	0.053***	0.048***
	(1.499)	(2.174)	(1.631)	(2.164)	(1.197)	(1.650)	(0.012)	(0.013)
Asian	1.420*	0.039	-0.722	-1.982	-1.132	-1.275	0.006	0.012**
	(0.820)	(1.076)	(0.883)	(1.222)	(0.757)	(0.987)	(0.005)	(0.005)
Hispanic	-0.449	-1.983	-1.406	-1.959	-0.539	-0.172	-0.001	0.010
	(1.350)	(1.920)	(1.367)	(1.917)	(1.129)	(1.690)	(0.008)	(0.012)
Male	-0.836	-1.873**	0.029	-0.560	-0.231	-0.307	0.010***	0.014***
	(0.629)	(0.782)	(0.686)	(0.827)	(0.560)	(0.715)	(0.003)	(0.004)
Black × Male		-0.449		-4.579		-1.330		0.007
		(2.870)		(3.086)		(2.402)		(0.024)
Asian × Male		2.725*		2.594		0.394		-0.013
		(1.516)		(1.722)		(1.396)		(0.009)
Hispanic × Male		2.592		0.925		-0.655		-0.019
		(2.755)		(2.685)		(2.292)		(0.016)
% White Coworkers	-4.932	-0.917	-5.689	-5.490	5.006	3.253	0.019	0.003
	(4.711)	(5.235)	(5.126)	(5.631)	(4.229)	(4.611)	(0.020)	(0.022)
Male × % White Coworkers		-7.266		-0.817		2.757		0.027
		(4.512)		(4.464)		(4.038)		(0.019)
Black × % White Coworkers	8.438	-2.918	5.079	-4.035	-3.381	-13.153	0.169***	0.235***
	(8.141)	(13.937)	(8.759)	(13.038)	(6.697)	(9.862)	(0.064)	(0.074)
Asian × % White Coworkers	-2.250	1.124	-5.191	-1.283	-6.190	-5.730	0.033	0.050*
	(4.487)	(5.675)	(4.623)	(5.878)	(3.828)	(5.257)	(0.023)	(0.026)
Hispanic × % White Coworkers	-8.605	-10.867	-11.942*	-5.895	1.711	7.433	0.056	0.090*
	(7.155)	(9.015)	(6.879)	(10.145)	(6.986)	(10.371)	(0.040)	(0.048)
Black × Male × % White Coworkers		20.529		17.040		18.784		-0.113
		(17.650)		(18.627)		(13.233)		(0.128)
Asian × Male × % White Coworkers		-9.522		-9.409		-0.012		-0.029
		(7.626)		(8.191)		(7.329)		(0.045)
Hispanic × Male × % White Coworkers		3.221		-11.008		-10.117		-0.061
		(13.858)		(14.296)		(12.491)		(0.068)
White Mean Dep. Var.	202		173		60		0.021	
White Female Mean Dep. Var.		203		174		62		0.011
Individual controls	X	X	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X	X	X
Manager interaction	X	X	X	X	X	X	X	X
Nb. obs	7616	7616	7595	7595	7616	7616	6112	6112

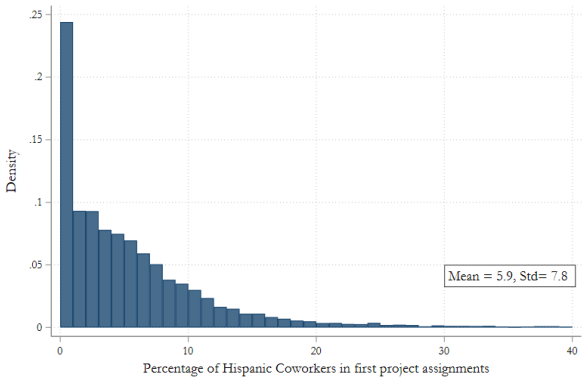
Notes. This table presents OLS estimates of a linear model where the dependent variable is: employees' mean hours of work per month in the first two years (Columns 1 and 2), employees' mean billable hours of work per month in the first two years (Columns 3 and 4), the percentage of priority projects out of total projects in the first two years (Columns 5 and 6), the first performance review received at the firm (Columns 7 and 8). The explanatory variables are race-gender dummies and the average percentage of White coworkers in all the projects that the new hire started working on within two months of their hire. Columns 1, 3, 5 and 7 have the same controls as Column 2 in Table V, Columns 2, 4 6 and 8 have the same controls as Column 3 in Table V . All columns include office-year fixed effects. Continuous predictors are mean centered. Standard errors are clustered at the office-year level and reported in parentheses.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

A. Appendix Figures

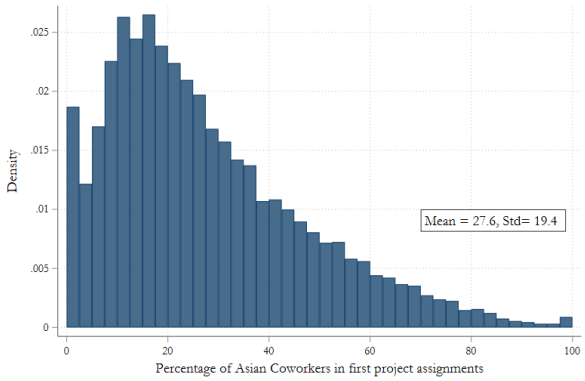
Figure A.1: Racial and Gender Composition of Teams



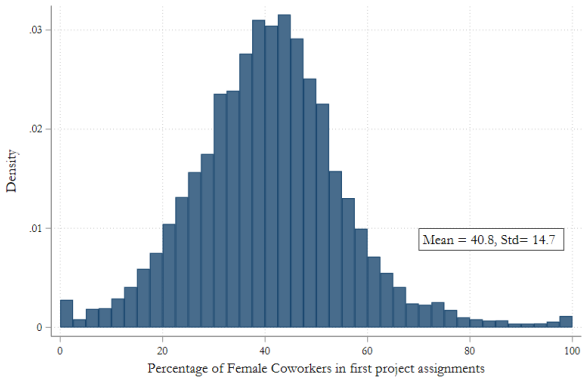
(a) Black Coworkers



(b) Hispanic Coworkers



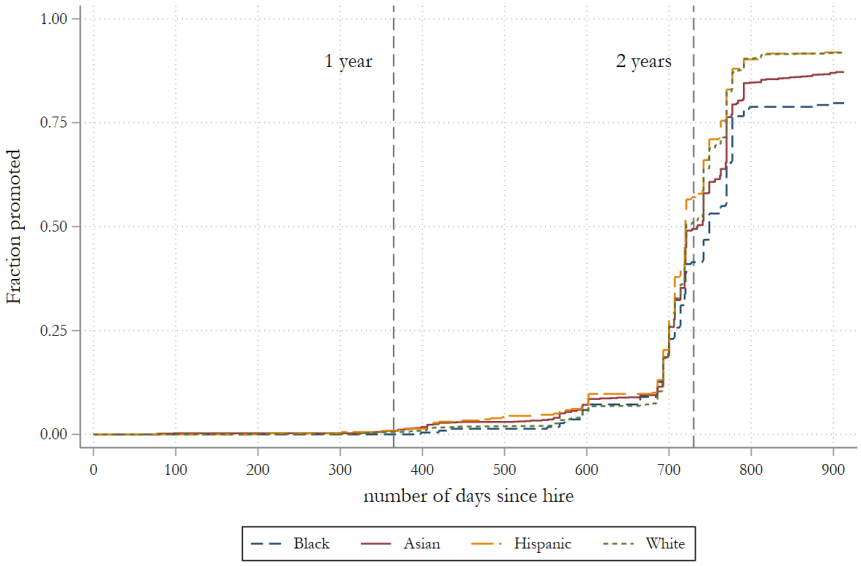
(c) Asian Coworkers



(d) Female Coworkers

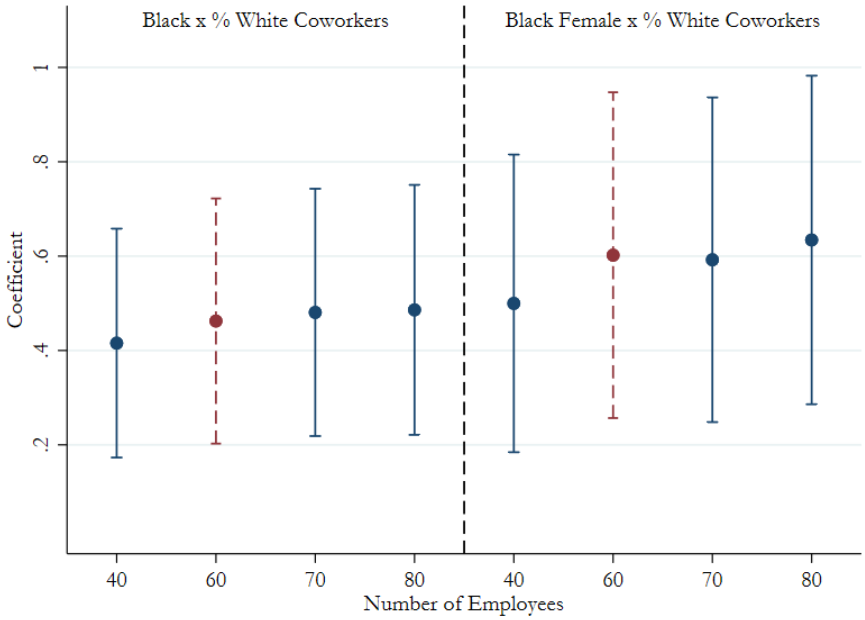
Notes. This figure shows the distribution of new hires' average percentage of (a) Black coworkers, (b) Hispanic coworkers, (c) White coworkers, and (d) female coworkers in initial project assignments.

Figure A.2: KM Survival Rates for Promotion, by Race



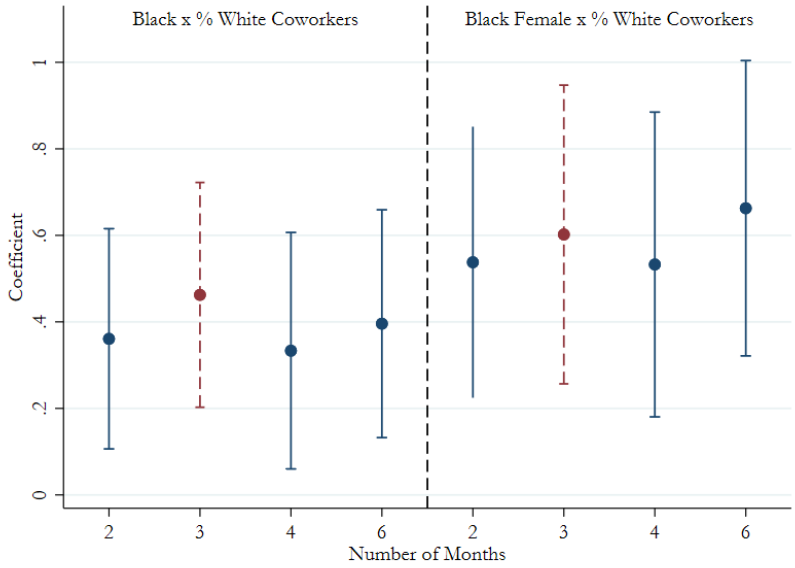
Notes. This figure shows the estimated Kaplan–Meier survivor function for employees by race. The y-axis represents the probability that an employee of a given race will become promoted. The x-axis represents the number of days days since the hiring date.

Figure A.3: Robustness of Turnover Results: Varying Measure of Initial Project Assignment



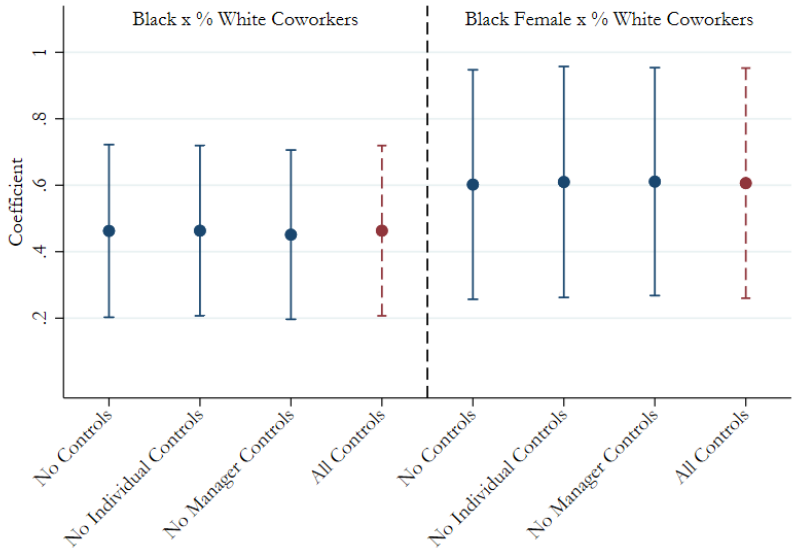
Notes. This figure shows the results of a robustness check where we alter the threshold of employees, above which a project is excluded from the list of initial project assignments of a given new hire. In the main analysis (Table V), only teams with less than 60 employees are considered. Here, we vary this cutoff (from 40 to 80 employees) and plot the resulting coefficient on Black × % White Coworkers (left panel), with otherwise the same specification as in Table V Column 2, and Black Female × % White Coworkers, with otherwise the same specification as in Table V Column 3. As a benchmark we plot in red (and dashed confidence interval) the coefficients from Table V, respectively Column 2 for the left panel and Column 3 for the right panel. 95% confidence intervals are reported.

Figure A.4: Robustness of Turnover Results: Varying Time-Window of Initial Project Team



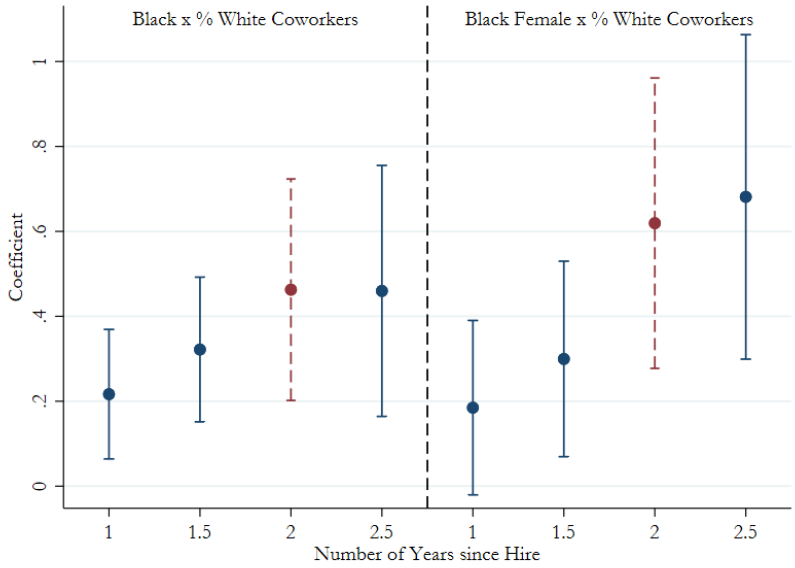
Notes. This figure shows the results of a robustness check where we alter the time window during which we consider assignment to initial projects. In the main analysis (Table V), initial projects are defined as the projects that the new hire was assigned to in the first three months since their hire. Here, we vary this cutoff (from 2 to 6 months) and plot the resulting coefficient on Black × % White Coworkers (left panel), with otherwise the same specification as in Table V Column 2, and Black Female × % White Coworkers, with otherwise the same specification as in Table V Column 3. As a benchmark we plot in red (and dashed confidence interval) the coefficients from Table V, respectively Column 2 for the left panel and Column 3 for the right panel. 95% confidence intervals are reported.

Figure A.5: Robustness of Turnover Results: Varying Controls



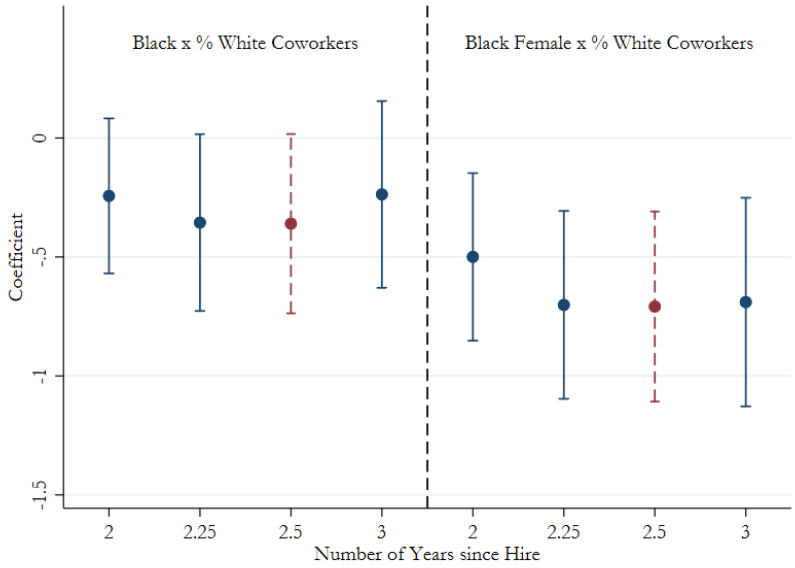
Notes. This figure shows the results of a robustness check where we alter the controls used in the main regression (Table V). On the left panel, we show the coefficient on Black × % White Coworkers from the same specification as in Table V Column 2 , except we alter the controls as follows: (1) we remove all controls (2) we remove individual controls (3) we remove controls on the race and gender of managers, and (4) is the benchmark, that is the same controls - and therefore same coefficient - as in Table V Column 2. We repeat this exercise on the right panel, this time altering the controls from Table V Column 3 and showing the coefficient for Black Female × % White Coworkers. As a benchmark we plot in red (and dashed confidence interval) the coefficients from Table V, respectively Column 2 for the left panel and Column 3 for the right panel. 95% confidence intervals are reported.

Figure A.6: Robustness of Turnover Results: Varying Measure of Turnover



Notes. This figure shows the results of a robustness check where we vary the measure of turnover. In the main analysis (Table V), turnover is defined as a binary variable indicating whether an employee has left the company within two years. Here, we vary the two-year cutoff and consider turnover within one, one and a half, and two and a half years and plot the resulting coefficient on Black × % White Coworkers (left panel), with otherwise the same specification as in Table V Column 2, and Black Female × % White Coworkers, with otherwise the same specification as in Table V Column 3. As a benchmark we plot in red (and dashed confidence interval) the coefficients from Table V, respectively Column 2 for the left panel and Column 3 for the right panel. 95% confidence intervals are reported.

Figure A.7: Robustness of Promotion Results: Varying Measure of Promotion



Notes. This figure shows the results of a robustness check where we vary the measure of promotion. In the main analysis (Table VI), promotion is defined as a binary variable indicating whether an employee is promoted in the company within two and a half years. Here, we vary the two-and-a-half-year cutoff and consider promotion within two years, two years and three months, and three years and plot the resulting coefficient on Black × % White Coworkers (left panel), with otherwise the same specification as in Table VI Column 2, and Black Female × % White Coworkers, with otherwise the same specification as in Table VI Column 3. As a benchmark we plot in red (and dashed confidence interval) the coefficients from Table VI, respectively Column 2 for the left panel and Column 3 for the right panel. 95% confidence intervals are reported.

B. Appendix Tables

Table B.1: Descriptives: Race and Gender

Panel A: Race and Gender of Employees

	Share
Black Female	0.02
Black Male	0.03
Asian Female	0.17
Asian Male	0.14
Hispanic Female	0.03
Hispanic Male	0.04
White Female	0.24
White Male	0.33

Panel B: Race and Gender of Coworkers

	Mean	Sd	Median	P25	P75
% Female Coworkers	40.8	14.7	40.7	31.7	49.3
% White Coworkers	59.1	20.3	61.1	46.2	73.8
% Asian Coworkers	27.6	19.4	23.2	12.8	38.6
% Hispanic Coworkers	5.9	7.8	3.9	1.1	7.9
% Black Coworkers	5.0	7.2	2.5	0.4	6.8

Notes. Panel A of this table reports the race and gender of the new hires. Panel B reports statistics on the racial and gender composition of the new hires' coworkers in the first assigned projects.

Table B.2: Turnover and Promotion, by Race and Gender

	Turnover (2 yr)		Promotion (2.5 yr)	
	Mean	Sd	Mean	Sd
Black Female	0.27	0.44	0.52	0.50
Black Male	0.28	0.45	0.47	0.50
Asian Female	0.22	0.42	0.61	0.49
Asian Male	0.25	0.43	0.57	0.49
Hispanic Female	0.20	0.40	0.72	0.45
Hispanic Male	0.23	0.42	0.59	0.49
White Female	0.17	0.38	0.73	0.44
White Male	0.24	0.43	0.64	0.48

Notes. This table reports, by race and gender, the average and standard deviation of employees' (a) turnover within two years and (b) promotion within two years and a half.

Table B.3: Test of Random Assignment I

Panel A: Employee Race and Gender

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Black Female	Black Male	Asian Female	Asian Male	Hispanic Female	Hispanic Male	White Female	White Male
% White Coworkers	-0.014	-0.038	0.032	-0.052	0.014	0.021	0.014	0.023
	(0.026)	(0.027)	(0.054)	(0.051)	(0.035)	(0.030)	(0.062)	(0.070)
% Black Coworkers	0.049	0.026	0.081	-0.084	0.008	-0.025	0.013	-0.068
	(0.037)	(0.046)	(0.069)	(0.067)	(0.043)	(0.041)	(0.087)	(0.095)
% Asian Coworkers	0.001	-0.036	0.134**	0.054	-0.018	-0.024	-0.072	-0.040
	(0.024)	(0.028)	(0.056)	(0.056)	(0.035)	(0.029)	(0.064)	(0.071)

Panel B: Project Characteristics

	(1)	(2)	(3)	(4)				
	Top Priority	Second Priority	Third Priority	Fourth Priority				
% White Coworkers	0.032	0.014	-0.009	0.004				
	(0.028)	(0.023)	(0.015)	(0.009)				
% Black Coworkers	0.012	0.015	-0.016	0.011				
	(0.036)	(0.031)	(0.018)	(0.011)				
% Asian Coworkers	0.021	0.001	-0.011	0.005				
	(0.029)	(0.023)	(0.016)	(0.009)				
Individual controls	X	X	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X	X	X
Nb. obs	11776	11776	11776	11776	11776	11776	11776	11776

Notes. This table presents the same estimates as Table II with the exception of additionally controlling for new hires' characteristics. For more information on the specification, see Table II and for information on the controls see the notes under Table V.

Table B.4: The Effect of First Managers Race Composition on Turnover, by Race and Gender

	OLS			Cox		
	(1)	(2)	(3)	(4)	(5)	(6)
% Black managers	-0.021	-0.022	-0.021	1.001	1.001	1.001
	(0.042)	(0.041)	(0.042)	(0.002)	(0.002)	(0.002)
% Asian managers	0.007	0.007	0.008	1.000	1.000	1.000
	(0.028)	(0.028)	(0.028)	(0.001)	(0.001)	(0.001)
% White managers	0.009	0.008	0.009	0.999	0.999	1.001
	(0.026)	(0.026)	(0.031)	(0.001)	(0.001)	(0.001)
Male × % White Managers			-0.001			0.998*
			(0.033)			(0.001)
Black × % White Managers	-0.029	-0.030	-0.000	1.002	1.002	1.000
	(0.061)	(0.061)	(0.078)	(0.003)	(0.003)	(0.004)
Asian × % White Managers	0.014	0.015	0.060	1.001	1.001	1.000
	(0.029)	(0.029)	(0.038)	(0.001)	(0.001)	(0.002)
Hispanic × % White Managers	0.004	0.005	-0.054	1.002	1.002	0.997
	(0.056)	(0.056)	(0.074)	(0.002)	(0.002)	(0.003)
Black × Male × % White Managers			-0.048			1.003
			(0.116)			(0.005)
Asian × Male × % White Managers			-0.104*			1.001
			(0.060)			(0.002)
Hispanic × Male × % White Managers			0.113			1.010**
			(0.099)			(0.004)
White Mean Turnover	0.211	0.211		0.211	0.211	
White Female Mean Turnover			0.172			0.172
Individual controls	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X
Nb. obs	7617	7617	7617	11776	11776	11776

Notes. This table shows the estimated coefficients on the interaction between the share of managers who are White in the employee's first project assignments and the employee's own race (in Columns 1, 2, 4 and 5), as well as gender (in Columns 3 and 6). The other variables in the regression are the same as in the equivalent columns of Table V. Standard errors clustered at the office-year level and reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.5: The Effect of First Team Composition on Turnover: Beyond Tokenism

	OLS			Cox		
	(1)	(2)	(3)	(4)	(5)	(6)
Black	0.096***	0.097***	0.130***	1.365***	1.370***	1.403**
	(0.030)	(0.030)	(0.037)	(0.150)	(0.151)	(0.231)
Asian	0.014	0.021	0.028	1.100	1.134**	1.160*
	(0.016)	(0.016)	(0.021)	(0.066)	(0.068)	(0.097)
Hispanic	-0.003	-0.001	0.010	1.075	1.087	1.233
	(0.027)	(0.027)	(0.039)	(0.106)	(0.107)	(0.184)
Male		0.041***	0.047***		1.219***	1.261***
		(0.012)	(0.015)		(0.058)	(0.080)
Black × Male			-0.061			0.947
			(0.051)			(0.205)
Asian × Male			-0.014			0.969
			(0.030)			(0.110)
Hispanic × Male			-0.022			0.795
			(0.051)			(0.154)
% White Coworkers	0.086	0.088	0.016	1.004	1.004	1.001
	(0.089)	(0.090)	(0.101)	(0.004)	(0.004)	(0.005)
Male × % White Coworkers			0.126			1.005
			(0.085)			(0.004)
Black × % White Coworkers	0.380***	0.379***	0.565***	1.019***	1.019***	1.030***
	(0.142)	(0.142)	(0.180)	(0.007)	(0.007)	(0.010)
Asian × % White Coworkers	-0.056	-0.052	-0.003	1.001	1.001	0.999
	(0.088)	(0.088)	(0.110)	(0.003)	(0.003)	(0.005)
Hispanic × % White Coworkers	-0.122	-0.127	-0.106	0.991	0.991	0.996
	(0.157)	(0.157)	(0.220)	(0.006)	(0.006)	(0.009)
Black × Male × % White Coworkers			-0.350			0.981
			(0.296)			(0.013)
Asian × Male × % White Coworkers			-0.054			1.008
			(0.151)			(0.006)
Hispanic × Male × % White Coworkers			-0.022			0.991
			(0.278)			(0.011)
White Mean Turnover	0.211	0.211		0.211	0.211	
White Female Mean Turnover			0.17			0.17
Individual controls	X	X	X	X	X	X
Office × Year FE	X	X	X	X	X	X
Manager interaction	X	X	X	X	X	X
Nb. obs	6659	6659	6659	10048	10048	10048

Notes. This table presents the same estimates as Table V, but restricted to the sample of employees who have at least one Black employee in their team. The specification is otherwise the same as in Table V. Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.