

New Evidence on the Underrepresentation of Asian Americans in Leadership Positions

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Abstract

For decades, Asian Americans have been characterized as a “model minority” due to perceived success in educational attainment and labor market outcomes. However, there are concerns that Asians remain underrepresented in top level positions in the workplace. This study presents new evidence on the extent of this underrepresentation between US-born Asian American and White men and examines mechanisms driving racial leadership gaps. Results indicate that Asian men are significantly less likely to work in management and executive positions compared to White men with similar qualifications. However, Asian men are not underrepresented in other high-paying, non-leadership occupations, suggesting this is a phenomenon unique to leadership occupations. Furthermore, these gaps are only present among East Asian and Southeast Asian men, while South Asian men do not differ from White men in their likelihood of working in leadership occupations. I examine several mechanisms and find no evidence that gaps are driven by racial differences in preferences for leadership positions, selection into self-employment, intergenerational transmission, immigration recency, ethnic attrition, spousal characteristics, or geographic sorting.

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1 Introduction

Asian Americans are currently the single fastest growing racial and ethnic group in the United States (Budiman & Ruiz, 2021). Since the mid-1900s, Asian Americans have been characterized as “model minorities,” due to their perceived academic and economic successes (Wu, 2015). This stereotype is bolstered by the fact that recent immigrants from Asia are hyper-selected: immigrants in recent decades are more highly educated on average than both non-migrants in their home countries and native-born US counterparts (J. Lee & Zhou, 2015). This stereotype has been used to suggest Asian Americans have fully succeeded in assimilating and serve as a “model” for other non-White groups. However, the use of this stereotype has been criticized for ignoring the unique challenges and barriers faced by different racial and ethnic groups, as well as for obscuring the diversity of experiences within the Asian American community (Yi & Museus, 2015).

Furthermore, there are criticisms that the claim that Asian Americans have fully achieved parity with White Americans is misleading. While Asian Americans have high levels of education and earnings on average, there are concerns of their apparent lack of visibility in higher levels of leadership, such as executive or other top corporate positions. This phenomenon, which has been coined the “bamboo ceiling,” refers to the various factors that contribute to the underrepresentation of Asian Americans in leadership positions within organizations (Chin, 2020; Hyun, 2005). This study provides new evidence on the extent and nature of this underrepresentation.

Leadership representation is important for several reasons. First, individuals in leadership positions have disproportionate influence over key decisions that affect a firm, and representation in these roles ensures that a group’s perspective is heard. Second, those in leadership positions have the power to advocate for the needs and interests of their communities, both inside and outside a firm, potentially leading to more equitable outcomes and a greater focus on diversity and inclusion. These individuals may also serve as role models for others in the group. Lastly, leadership positions often sit at the top of career ladders, and barriers to these positions for a group reflect serious structural inequalities in career advancement.

In this paper, I analyze differences in leadership representation between US-born Asian and White men and assess various mechanisms that may explain racial differences in representation.¹ The primary analysis for this paper uses data from the American Community Survey (ACS), and I

¹I limit my main analysis to men due to challenges in comparing women’s labor market outcomes across racial groups due to their more complicated selection patterns into employment (Neal, 2004). An analysis of racial differences in women’s outcomes is provided in Appendix D for comparison.

use two definitions of employment in a leadership position using occupation codes from the ACS: employment in a management occupation and employment in an executive occupation. Management occupations represent a broader class of leadership occupations, while executive occupations are more exclusive and refer to top level executives. I find that even though Asian men do well in the labor market overall in terms of employment rates and earnings, they are significantly less likely to work in leadership occupations compared to White men with the same educational attainment, age, and other characteristics. Asian men are 2.8 percentage points less likely to work in management occupations than White men with similar qualifications, corresponding to a 24 percent decrease from the baseline propensity for White men to work in a management position. Similarly, Asian men are 0.6 percentage points less likely to work in executive occupations than White men, corresponding to a 46 percent decrease from the baseline propensity for White men to work in an executive position.² These gaps in employment in leadership positions are similar to those experienced by Black and Hispanic men relative to White men. Specifically, Asian and Hispanic men experience similar gaps in management employment (with Black men experiencing larger gaps), and Asian and Black men experience similar gaps in executive employment (with Hispanic men experiencing smaller gaps). I also find that these gaps in leadership representation between White and Asian men have been persistent and fairly constant over several decades, suggesting this gap may not disappear without intervention, despite the model minority stereotype suggesting Asian Americans are successful in rapid assimilation.

One possible explanation for the underrepresentation of Asian men in leadership occupations is that this reflects a broader trend of Asian men facing barriers to accessing high-paying jobs in general, rather than reflecting a barrier that is unique to leadership occupations. To assess this possibility, I analyze differences in the propensity for Asian and White men to work in high-paying, non-leadership occupations. Results indicate that Asian men are not less likely to work in high-paying occupations outside of leadership, compared to White men with similar qualifications, suggesting that the gap in employment in management and executive occupations is a phenomenon specific to leadership positions. In contrast, I find that Black and Hispanic men, in addition to being underrepresented in management and executive occupations, are also underrepresented in higher-paying jobs more generally. This suggests that the gaps in leadership

²For reference, the magnitude of these gaps are similar to the gaps in leadership representation between employed men and women in the sample. Employed women are 2.4 percentage points less likely to work in management occupations than employed men and 0.7 percentage points less likely to work in executive occupations than employed men. One caveat with the gender estimates is that they focus on the sample of employed individuals and do not account for gender differences in selection into employment.

employment experienced by Black and Hispanic men may at least in part reflect wider structural factors that prevent them from accessing high-paying jobs.

I also assess heterogeneity in Asian representation in leadership occupations across ethnic subgroups. While Asian Americans are often treated as a homogeneous group in policy discourse, they represent a diverse group of individuals in terms of cultural background, immigration history, and socioeconomic status (E. Lee, 2015; J. Lee & Zhou, 2015). Disaggregating Asian Americans by subgroup provides a more accurate understanding of the experiences and needs of this population and allows for more nuanced policy recommendations. To assess whether employment gaps in leadership occupations are similar across subgroups, I categorize Asian Americans in the sample into one of three groups: East Asian, South Asian, and Southeast Asian.³ Results indicate underrepresentation in leadership occupations is sizable for East and Southeast Asian men. In contrast, South Asian men do not differ in their probability of working in a management or executive occupation compared to White men with similar characteristics.

I examine multiple potential mechanisms driving measured differences in leadership employment between Asian and White men. I categorize these mechanisms into two broad, loosely-defined groups: *mechanisms correlated with race* and *race-specific mechanisms*. For mechanisms correlated with race, I assess whether gaps in leadership can be explained by racial differences in the self-employment, immigration generation recency, or ethnic attrition. First, I assess the extent to which racial gaps in working in leadership occupations are driven by self-employed men or by racial differences in the propensity to be self-employed, as a large share of self-employed individuals report working in a management or executive occupation. Using multiple methods of accounting for self-employed individuals, I find no evidence that self-employment plays a mediating role in explaining racial differences in leadership. Second, I assess the extent to which gaps in leadership representation between White and Asian men reflect differences in immigration generation recency, irrespective of racial and ethnic background. This could be the case since on average, US-born Asian men are from families that have been in the US for significantly fewer generations than US-born White men. I address this channel by looking at whether there are leadership gaps for White men across different immigration generations using data from the Current Population Survey (CPS).⁴ I find no evidence that White men from families who have come to the US more recently are less likely to work in leadership occupation than White men whose families have been

³Table 5 provides a breakdown of the specific ethnic groups in each subgroup.

⁴I use CPS data because this survey contains information on parental birthplace, while the ACS does not.

in the US for more generations, suggesting immigration recency cannot explain my results. Relatedly, I do not find any evidence that immigration recency differences across Asian subgroups drive subgroup heterogeneity in leadership propensity. Third, I assess whether the underrepresentation of Asians in leadership occupations is driven by ethnic attrition in Asian self-reporting. This concern is especially pertinent to this study, which focuses on individuals born in the US using self-reported race information, as prior research has shown that ethnic attrition is sizable for Asian Americans starting in the second generation (Duncan & Trejo, 2017). Ethnic attrition could lead to underrepresentation of Asian Americans in leadership if there is positive selection out of Asian self-identification with respect to leadership employment. I assess this channel by re-estimating main results using data from the CPS and categorizing an individual's race based on their parents' birthplace to create an alternate, more "objective," metric of race. Estimates using this categorization of Asians yield similar results to those of the main ACS sample, suggesting results are not driven by ethnic attrition.

The second broad category of mechanisms examined are race-specific mechanisms. One possibility is that this gap is due to racial differences in preferences for leadership occupations, resulting from differences in tastes or comparative/absolute advantages. A second possibility is that this gap could reflect racial discrimination in the workplace, which could be taste-based or stereotype-based in nature. Finally, unobserved characteristics that are correlated with race could also be contributing to the underrepresentation of Asian men in leadership positions, such as differences in access to social networks, human capital, or cultural differences in how individuals are socialized to interact in the workplace. To examine the role of preferences, I measure whether gaps in leadership representation between White and Asian men with bachelor's degrees are smaller within degree fields that are geared towards leadership roles (such as Business Management and Administration). Intuitively, individuals who select into these majors likely have a higher preference for working in leadership occupations. To the extent that there are racial differences in preferences for working in leadership occupations, a significant portion of these differences in preferences should be captured at the extensive margin of selection into these majors. I also bring in survey data from the National Survey of College Graduates (NSCG) to assess racial differences in the valuation of and satisfaction with job advancement. Results from both analyses suggest that racial gaps in leadership are not driven by Asians' lower preferences for leadership positions. Next, I assess the possibility that various types of unobserved or unaccounted for differences across race may be contributing to these gaps. I investigate the role of differences in spousal characteristics in con-

tributing to leadership gaps, since there is a large degree of assortative matching by race as well as large racial differences in labor market characteristics of women across racial groups. Leadership gaps remain after adjusting for spousal characteristics or restricting the sample to unmarried men, suggesting this channel is not driving racial gaps in leadership representation. Additionally, I look at the role of geographical sorting in driving leadership gaps and do not find evidence that results are driven by racial differences in geographical constraints. I also look at the role of intergenerational network transmission in affecting racial gaps in leadership propensity. I proxy for parental generation by looking at racial differences in leadership representation by race for individuals one generation earlier, using 25-64 year old men in the 1990 Census. Results indicate Asian men in the 1990 Census are also significantly less likely to hold leadership positions than White counterparts. However, I find that this is true for all Asian ethnic subgroups, and that South Asian men in 1990 are less likely to be in leadership occupations than White men and East Asian men. Thus, the fact that contemporary South Asian men are not underrepresented in leadership positions does not seem to be driven by higher access to these positions in the parent generation. Finally, I provide sensitivity analyses to assess the robustness of coefficient estimates to selection on unobservables to get a sense for whether leadership gaps are likely driven by discrimination as opposed to unobserved characteristics. Analysis results indicate selection on unobservables would have to go in the opposite direction of selection on observables in order to overturn the results. However, the magnitude of the selection would not have to be very high.

The analysis of mechanisms provides novel information suggesting that the lower propensity for Asian American men to work in leadership occupations compared to White counterparts represent meaningful racial gaps that cannot be easily explained. These gaps could stem from factors including discrimination or unobserved racial differences that matter for job advancement (such as cultural differences in how individuals are socialized to interact in the workplace or racial differences in leadership-relevant skills), or a combination of these factors. However, to the extent that representation in the workplace is valued, these gaps represent an important policy issue.

This paper relates to existing work on disparities in leadership representation. Most work in this literature has focused on gender gaps. There are a number of studies that focus on understanding the nature of female underrepresentation in leadership positions (Husain, Matsa, & Miller, 2021; Matsa & Miller, 2011; von Essen & Smith, 2023; Wolfers, 2006), as well as studies looking at effects of female leadership on firm outcomes (Adams & Ferreira, 2009; Ahern & Dittmar, 2011; Bertrand, Black, Jensen, & Lleras-Muney, 2019; Ferreira & Gyourko, 2014; Flabbi, Macis,

Moro, & Schivardi, 2019; D. Kim & Starks, 2016; Kunze & Miller, 2017; Matsa & Miller, 2011; Tate & Yang, 2015). Less work has been done assessing racial differences in leadership representation in the workplace. One exception is Bogan, Potemkina, and Yonker (2021), which examines trends in racial diversity on US corporate boards over time. This study contributes to our understanding of the extent and nature of gaps in leadership representation between Asian and White men.

This paper also contributes to a growing body of work on Asian Americans. A few studies have looked at the labor market mobility of Asian Americans over time. Hilger (2017) traces Asian American mobility over the early- and mid-1900s, finding that Asian Americans experienced significant gains in earnings conditional on their educational attainment during this time. Duleep and Sanders (2012) measures labor market mobility for a later period, from 1960-1980 and finds that Asian American men experienced a large increase in earnings over this time as well, largely due to a decline in discrimination against Asians. In addition, a number of papers have examined earnings differences between Asians and Whites (Black, Haviland, Sanders, & Taylor, 2008; Chiswick, 1983; Duleep & Sanders, 1992; C. Kim & Sakamoto, 2010; M. Kim, 2003; Mar, 2005; Weinberger, 1998). These studies find varying degrees of earnings discrepancies between Asian Americans and Whites, although most papers find that Asians earn less than White counterparts with similar labor market characteristics and qualifications. Recent studies have also looked at differences in the treatment of Asian American and White students in the education system. For example, Shi and Zhu (2022) documents that teachers display positive bias in their evaluation of Asian students, compared to White students with comparable standardized test scores. Arcidiacono, Kinsler, and Ransom (2022) assesses discrimination towards Asian students relative to White students in the college admissions process, finding that a significant predictor of admissions differences between observably similar White and Asian students at Harvard is an ambiguously defined “personal” score. Grossman, Tomkins, Page, and Goel (2023) measures differences in admissions to selective colleges between Asian students and White students with similar qualifications. They find that Asian students are significantly less likely to be admitted compared to White peers, with this gap being especially pronounced for South Asian students.

This study most closely relates to a few papers looking at Asian American representation in leadership positions. Using data from the 1980 Census, Duleep and Sanders (1992) finds that Asian men are less likely than White men to be managers, conditional on observable characteristics. Mar (2005) documents a similar phenomenon using the 2000 Census. This study builds upon earlier studies in a number of ways. First, I extend prior studies to assess differences in leadership

representation across different Asian ethnic subgroups, revealing significant heterogeneity across groups. Second, the ACS data allow me to assess various levels of leadership positions, providing a more nuanced analysis of leadership employment. Indeed, I find that while gaps exist in both executive and management positions more broadly, they are significantly larger for executive occupations, which represent the highest level of leadership. Third, this study provides an in-depth analysis of mechanisms contributing to racial leadership employment gaps and is able to rule out several channels as the driver of these gaps. This work also relates to a psychology study by Lu, Nisbett, and Morris (2020), which uses a mixed-methods approach to study leadership gaps across Asian subgroups using survey data for employees at S&P 500 companies and MBA students at a top business school. The study finds that East Asians are less likely than White individuals to work in leadership occupations while South Asians are more likely to do so.⁵ My paper builds upon this study in assessing Asian subgroup differences across the entire US population instead of conditioning on individuals who are employed at a select group of companies. This allows me to address both selection into employment and selection into certain companies or school, both of which may affect racial differences in leadership representation. These differences may explain the differences between the two papers regarding the representation of South Asians in leadership occupations.

In the remainder of the paper, section 2 presents the primary data source used in the study and provides descriptive patterns. Section 3 assesses the representation of Asian American men in top-level leadership positions compared to White men, and section 4 breaks down this analysis by Asian ethnic subgroups. Section 5 examines various potential mechanisms behind racial differences in leadership representation and section 6 concludes.

2 Data and Descriptive Patterns

2.1 Data

This paper uses data from the Integrated Public Use Microdata Series for the 2019 five-year American Community Survey (ACS) sample, which contains all individuals from the 1% ACS sam-

⁵There are also a few psychology studies investigating disparities in performance and representation of Asian students in an education setting. Lu, Nisbett, and Morris (2022) finds that differences in assertiveness plays a key role in explaining the academic underperformance of East Asian students in a sample of top law and business schools. Lu (2022) investigates the underrepresentation of Asian students in leadership roles in law and business school and finds that high degrees of ethnic homophily in social networks may help explain the underrepresentation of East Asian students in these positions.

ples from 2015-2019 (Ruggles, Flood, Goeken, Schouweiler, & Sobek, 2022). The ACS, which is administered by the US Census Bureau, is a nationally representative household survey of non-institutionalized individuals in the US. I restrict the sample to US-born men aged 25-64, excluding individuals currently in school or in the military.⁶ Individuals are classified as Asian if they identify as non-Hispanic, Asian, and no other races. Similarly, individuals are classified as White or Black if they identify as non-Hispanic and with the respective single-race categories. Individuals are classified as Hispanic if they identify as Hispanic, regardless of the race reported.⁷ While the focus of this paper is on Asian-White differences in leadership representation, I provide some information on Black-White gaps and Hispanic-White gaps as well for comparison.

This study uses detailed data on labor market characteristics from the ACS, including information on occupation, industry, and earnings. Occupation classifications come from the six-digit Standard Occupational Classification (SOC) system. These codes are used to identify leadership roles in employment. I use two measures of leadership occupations in this study: management occupations and executive occupations. Management occupations are more broadly defined and represent one of 24 occupation categories.⁸ Executive occupations are a subset of management occupations and include individuals who work as “Chief Executives and Legislators,” constituting top-level leadership positions. More information on the types of jobs included in management occupations is provided in Appendix B.1. Industry classifications come from the six-digit North American Industry Classification System. Hourly earnings are calculated by dividing an individual’s annual wage income by the total number of hours worked. All wages are adjusted to reflect real 2019 dollars.⁹

The ACS also contains information on the highest level of education attained by each person in the sample. For those who have earned a bachelor’s degree or higher, I observe their field of study in college. The ACS includes self-reported data on an individual’s proficiency in English, with five different categories of proficiency. Additionally, I observe the state of residence, as well as metropolitan area of residence if the individual lives in one. All analyses use person weights provided by the ACS.

⁶Descriptive statistics and analyses for US-born women can be found in Appendix D for comparison.

⁷Approximately three percent of individuals in the sample identify as two or more races, and these individuals are not included in the analysis sample. Of individuals who identify as two or more races, approximately one third identify one of their races as Asian.

⁸Occupation categories are classified using the first two digits of an occupation’s SOC code. More information about the specific six-digit occupations that fall under the umbrella of Management occupations can be found in Appendix B.1.

⁹The Census Bureau top-codes the top 0.5% of earners in each state in a given year during this time period as having the average earnings of the top 0.5% of earners in the state.

2.2 Descriptive Patterns

Table 1 presents the sociodemographic characteristics of the sample across racial and ethnic groups. On average, Asian and Hispanic men are younger than White and Black men. The average age of Asians is 38.5 and the average age of Hispanics is 40.1, while the average age of White individuals is 45.6 and the average age of Black individuals is 43.5. This in part reflects that a larger proportion of Asians and Hispanics in the US are recent immigrants, which affects the age composition of US-born individuals from these groups. The ACS measures English proficiency on a five-point scale: 1: Does not speak English, 2: Yes, but not well, 3: Yes, speaks well, 4: Yes, speaks very well, 5: Yes, speaks only English. I categorize individuals as not completely proficient in English if they report a response of 1, 2, or 3. Overall, the sample has a very high level of English proficiency, which is not surprising since everyone is US-born. However, there remain non-trivial differences in proficiency among the groups. Specifically, five percent of Asians and 10 percent of Hispanics report incomplete proficiency in English. Asian men have higher education levels on average than White men and are more likely to have a bachelor's or graduate degree. Black and Hispanic men are less likely to have a bachelor's or graduate degree compared to White men. In terms of geographic residence, Asian Americans are disproportionately located in the West compared to other groups, with 60 percent of Asian Americans living in the West, 15 percent living in the Northeast, 19 percent living in the Midwest, and 16 percent living in the South. Additionally, Asian Americans are the most concentrated in urban areas out of all the groups, with approximately 93 percent residing in a metropolitan area.

Next, Table 2 presents labor market characteristics for the sample. Asian men are more likely to report employment in the previous year compared to other groups, with 85 percent of Asian men reporting employment, compared to 80 percent, 68 percent, and 78 percent for White, Black, and Hispanic men, respectively. Employed Asian men earn approximately \$43 an hour in 2019 dollars, compared to White men who earn \$38 an hour on average. This contrasts with means for Black and Hispanic men, who have lower hourly earnings than White men, earning \$26 per hour and \$28 per hour on average, respectively. These patterns are consistent with the differences in educational attainment across groups. The self-employment rate in this sample is five percent for Asian men, seven percent for White men, and three percent for both Black and Hispanic men. In contrast to education, earnings, and employment trends, Asian men do not appear in management or executive occupations at higher rates than White counterparts. Among the employed men in

Table 1: Sociodemographic Characteristics

	White	Asian	Black	Hispanic
Age	45.59 (11.63)	38.50 (10.80)	43.54 (11.71)	40.13 (11.07)
Not completely English proficient	0.00	0.05	0.00	0.10
Education				
Less than high school	0.07	0.04	0.14	0.17
High school	0.29	0.16	0.39	0.35
Some college	0.29	0.24	0.31	0.30
Bachelor's degree	0.23	0.36	0.11	0.13
Graduate degree	0.12	0.21	0.05	0.05
Region				
Northeast	0.18	0.15	0.13	0.14
Midwest	0.27	0.10	0.18	0.09
South	0.35	0.16	0.60	0.36
West	0.20	0.60	0.09	0.41
Resides in metropolitan area	0.73	0.93	0.82	0.89
<i>N</i>	2,487,770	43,346	320,323	258,630

Table includes US-born men ages 25-64 years old from 2015-2019, excluding individuals in school or the military. English proficiency is scored on a 5-category scale: 1: Does not speak English, 2: Yes, but not well, 3: Yes, speaks well, 4: Yes, speaks very well, 5: Yes, speaks only English. I categorize individuals as not completely proficient in English if they report a response of 1, 2, or 3.

the sample, 13 percent of Asian men work in a management occupation, compared to 14 percent of White men, seven percent of Black men, and nine percent of Hispanic men. Additionally, 1.0 percent of Asian men work in an executive occupation, compared to 1.6 percent of White men, 0.3 percent of Black men, and 0.5 percent of Hispanic men.

Figure 1 displays racial differences by education level in the propensity for employed men to work in management or executive occupations. Table 1 indicates there are significant differences in educational attainment by race, which could play a role in explaining racial differences in leadership since education may serve a key role in providing individuals with the skills and expertise needed for these roles. Figure 1 shows that for each education level, White men are more likely to work in a management or executive occupation compared to Asian men.

Descriptive analyses suggest that although Asian men have higher levels of education and earnings compared to White counterparts, they do not appear to have higher levels of representa-

Table 2: Labor Market Characteristics

	White	Asian	Black	Hispanic
Employed	0.80	0.85	0.68	0.78
Hourly earnings (2019\$)	38.37 (143.30)	42.61 (71.90)	25.94 (185.94)	27.99 (61.22)
Self-employed	0.07	0.05	0.03	0.03
Management occupation	0.14	0.13	0.07	0.09
Executive occupation	0.016	0.010	0.003	0.005
<i>N</i>	2,487,770	43,346	320,323	258,630

Table includes US-born men ages 25-64 years old from 2015-2019, excluding individuals in school or the military. Column observation counts represent the total number of individuals in each group, while earnings, self-employment, and occupation calculated from sample of employed individuals.

tion in leadership positions. In fact, Asian men appear to be less likely to work in leadership than White peers with similar education levels. However, it is possible that some of this difference may be explained by other factors such as age, English proficiency, or selection into employment. The following sections assess these factors and others to provide an accurate analysis of the magnitude and nature of the representation gap of Asian American men in leadership occupations.

3 Racial Differences in Leadership Representation

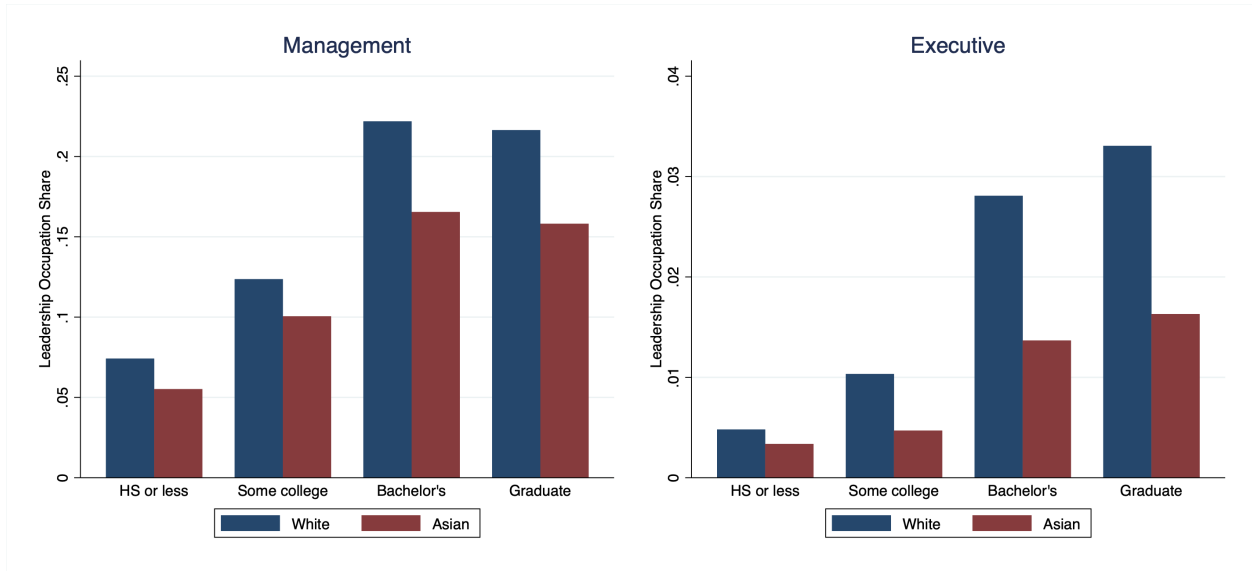
3.1 Main Analysis

I estimate the following linear probability model to evaluate differences in the propensity for Asian and White men to work in leadership occupations:

$$L_{it} = \alpha + \mathbf{Race}'_{it}\gamma + \mathbf{X}'_{it}\rho + \tau_t + \nu_{it} \quad (1)$$

where L_{it} is an indicator variable that takes a value of one if individual i works in a leadership occupation in year t and zero otherwise. I use two different measures of leadership positions: management occupations and executive occupations, as described in Section 2. The model includes a vector of controls, \mathbf{X}_{it} , to account for characteristics that may vary across race and affect an individual's occupation. These include controls for age, educational attainment, English profi-

Figure 1: Leadership Representation by Education Level



ciency, area of residence, and self-employment status. The model also includes a year fixed effect, τ_t . The coefficients on the vector of race indicator variables, \mathbf{Race}_{it} , capture differences in the propensity for individuals to work in leadership positions across racial and ethnic groups.

Table 3 presents estimation results from Equation 1. The first two columns display estimates for the sample of employed men. Column 1 displays estimates assessing whether an individual works in a management occupation, while Column 2 displays estimates assessing whether an individual works in an executive occupation. Estimates indicate Asian men are significantly less likely to work in leadership positions relative to White men with similar characteristics. Specifically, Asian men are 3.0 percentage points less likely to work in management occupations compared to White men, which is a 21 percent decrease from the baseline probability for employed White men to work in a management position. Additionally, Asian men are 0.7 percentage points less likely to work in management occupations compared to White men, which is a 44 percent decrease from the baseline probability for employed White men to work in an executive position.¹⁰

Columns 1 and 2 focus exclusively on employed men since only employed individuals report current occupations. However, this raises the concern that selection into employment may bias estimates. To address this, I provide alternate estimations in columns 3 and 4 of Table 3 that impute men who are not employed as not working in a management or executive position. This imputation follows prior work in assuming that men who are not employed are negatively se-

¹⁰For comparison, leadership gaps for employed women are shown in Table D3 in Appendix D.

Table 3: Employment in Leadership Positions

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Asian	-0.030*** (0.002)	-0.007*** (0.001)	-0.028*** (0.002)	-0.006*** (0.001)
Black	-0.051*** (0.001)	-0.008*** (0.000)	-0.047*** (0.001)	-0.006*** (0.000)
Hispanic	-0.028*** (0.001)	-0.005*** (0.000)	-0.023*** (0.001)	-0.004*** (0.000)
<i>N</i>	2,380,529	2,380,529	3,110,069	3,110,069
<i>R</i> ²	0.069	0.024	0.063	0.017
Control mean	0.145	0.016	0.115	0.013

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management occupation (columns 1 and 3) or executive occupation (columns 2 and 4). All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not working in management or executive positions.

lected (Cahuc, Carcillo, & Zylberberg, 2014). Results using the full sample also find that Asian men experience a penalty in occupying leadership positions compared to White men with similar qualifications. Specifically, Asian men are 2.8 percentage points less likely to work in management occupations compared White men, which is a 24 percent decrease from the baseline probability for White men in the full sample to work in a management position. Similarly, Asian men are 0.6 percentage points less likely to work in executive occupations than White men, which is a 46 percent decrease from the baseline probability of White men in the full sample of working in an executive position. These gaps in employment in leadership positions are similar to those experienced by Black and Hispanic men relative to White men. Specifically, Asian and Hispanic men experience similar gaps in management employment (with Black men experiencing larger gaps), and Asian and Black men experience similar gaps in executive employment (with Hispanic men experiencing smaller gaps).

Next, I assess whether there is heterogeneity in effects by education level or geography.¹¹ Table A1 in the appendix provides estimation results looking at whether results differ for individuals with and without college degrees. The findings indicate that the difference in leadership repre-

¹¹I also provide additional analyses looking at heterogeneity across industry within management fields in Appendix B.2.

sensation between Asian and White men is larger among those with a bachelor's degree or higher compared to those without a bachelor's degree. Table A2 examines the variation in racial disparities in leadership representation by region. Results show that Asian men are significantly less likely to hold leadership positions in all four major Census regions of the US: South, West, North, and Midwest. Results estimated on the employed sample suggest the gap in leadership representation is larger for Asian men in the West, but these gaps go away after adjusting for selection into employment in columns 3 and 4. After adjusting for labor force selection, the gap in management representation for Asian men is smaller in the North compared to other regions, although a substantial gap still exists. I do not find evidence that the gap in the propensity for Asian and White men to work in executive occupations differs across regions.

To provide some context for contemporary gaps in representation between Asian and White men, Figure 2 displays gaps in leadership representation between native-born Asian and White men over time using Census and ACS cross sections. I use data from the 1980, 1990, and 2000 Censuses and the 2010 and 2019 five-year ACS samples.¹² For each year, I plot coefficient estimates of Equation 1.¹³ I do not have information on individuals working in executive occupations before 2000, so I am unable to look at whether individuals work as executives in 1980 or 1990. Estimation results in the figure find that gaps in leadership representation between Asian and White men have been present and fairly constant over several decades, indicating this gap has been a persistent feature of the labor market for some time. The persistence of these gaps has important policy implications, suggesting the underrepresentation of Asian Americans in management and executive occupations will not necessarily disappear on their own, despite the stereotype of the model minority suggesting that Asian Americans are successful in rapid assimilation.

Overall, findings in this section indicate a significant gap in leadership representation between White and Asian men. Despite having high levels of education and earnings, Asian men do not attain management or executive positions at the same rate as White men with similar qualifications.

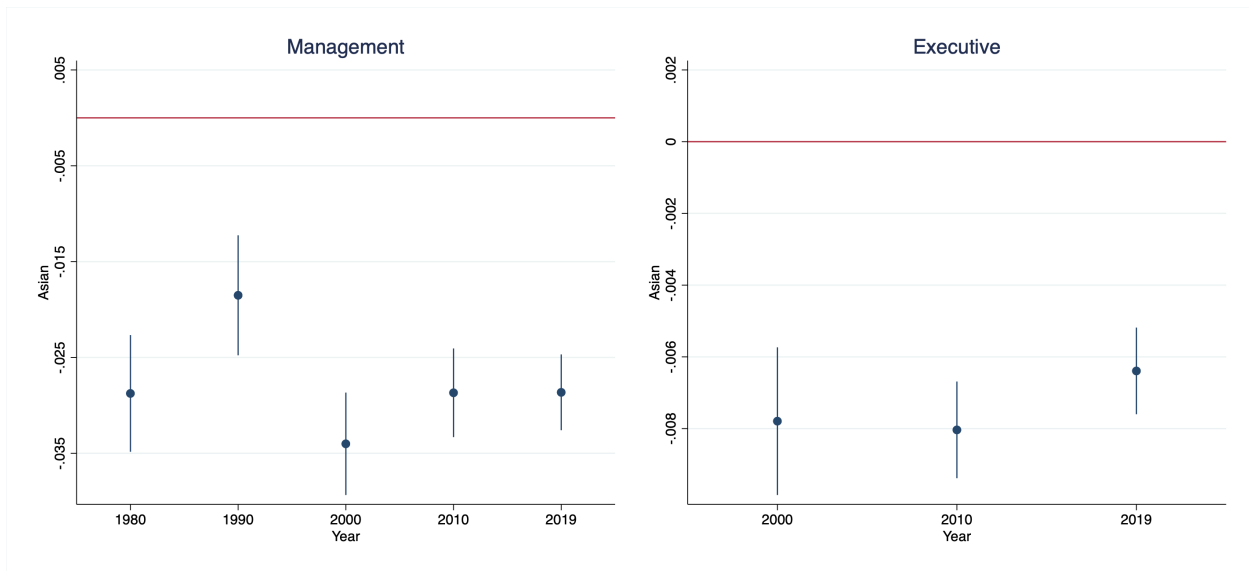
3.2 Racial Representation in High-paying, Non-leadership Occupations

One possibility is that the underrepresentation of Asian men in leadership positions is indicative of a broader phenomenon of Asian men not being able to access high-paying jobs. To determine if

¹²I pool together five years of data for 2010 and 2019 to increase sample size.

¹³One difference in these estimates from estimates in Table 3 is that I do not include controls for degree field since this information was not available in earlier ACS and Census surveys.

Figure 2: Racial Gaps in Leadership Representation over Time



Graphs display linear probability model estimates for the magnitude of the difference in the propensity for Asian men to work in a management or executive occupation compared to White men across different time cross-sections with 95% confidence intervals. Data come from the 1980 Census 5% sample, 1990 Census 5% sample, 2000 Census 5% sample, pooled 2006-2010 ACS 1% samples (labeled 2010), and pooled 2015-2019 ACS 1% samples (labeled 2019). All specifications include controls for age, age squared, level of educational attainment, English proficiency, geographic location, and self-employment status. The samples include both employed and non-employed men, and individuals who are not employed are imputed as not being in management or executive positions. Control means (management): 1980=0.107, 1990=0.108, 2000=0.109, 2010=0.112, 2019=0.120. Control means (executive): 2000=0.015, 2010=0.013, 2019=0.013.

the barriers that Asian men face in accessing leadership positions are unique to those roles, I assess Asian representation in high-paying, non-leadership occupations to assess whether Asian men are underrepresented in these positions as well. To do so, I estimate the following specification on the sample of men who do not work in leadership occupations:

$$M_{it}^{wm} = \alpha + \mathbf{Race}'_{it}\kappa + \mathbf{X}'_{it}\phi + \tau_t + \vartheta_{it} \quad (2)$$

where M_{it}^{wm} denotes either the mean log hourly earnings or median log hourly earnings of White males in the occupation that individual i works in at time t . As in the previous regression in Equation 1, I include a vector of individual controls, \mathbf{X}_{it} . These controls include age, educational attainment, English proficiency, area of residence, and self-employment status. I also include a year fixed effect, τ_t . The estimated coefficients on the vector of race indicator variables, \mathbf{Race}_{it} , measure differences in the average pay level of the occupations that individuals work in across racial and ethnic groups, where occupational pay level is measured by the mean or median log hourly earnings of White men in the occupation.¹⁴

Table 4 presents the results of this analysis. The outcome variable in columns 1 and 2 is the mean log hourly earnings of White males in an individual's occupation, and the outcome variable in columns 3 and 4 is the median log hourly earnings of White males. Column 1 compares the occupational pay level of employed Asian and White men who do not work in a leadership occupation and finds no difference in the average occupational pay level between Asian and White men. Column 2 compares the occupational pay level of all Asian and White men who do not work in leadership occupations. Non-employed individuals in column 2 are given an imputed outcome value of the mean earnings of the occupation that has the lowest mean pay for White men, and I estimate results using a median regression. Coefficient estimates similarly indicate no difference in the average occupational pay level between Asian and White men. In columns 3 and 4, I perform a similar analysis in which I use median occupational earnings as an alternative measure of occupational pay. These results tell a similar story, indicating Asian men do not work in lower-paying occupations than White counterparts. If anything, coefficient estimates using median pay as a measure of occupational pay levels suggest Asian men may work in slightly higher-paying occupations than White men, although coefficient estimates are not statistically significant.¹⁵

¹⁴I calculate the average pay for a specific occupation using the earnings of White men only because using the earnings of all individuals in the occupation may be confounded by racial pay gaps since the racial composition of individuals varies widely across occupations.

¹⁵Table 4 excludes individuals working in any leadership positions, including both executive and management oc-

Table 4: Employment in High-Paying Occupations

Outcome:	Mean White Men Occupational Earnings		Median White Men Occupational Earnings	
	Employed	All	Employed	All
	(1)	(2)	(3)	(4)
Asian	0.000 (0.003)	0.000 (0.003)	0.004 (0.003)	0.003 (0.003)
Black	-0.142*** (0.001)	-0.173*** (0.001)	-0.141*** (0.001)	-0.171*** (0.001)
Hispanic	-0.054*** (0.001)	-0.028*** (0.001)	-0.053*** (0.001)	-0.027*** (0.001)
<i>N</i>	2,059,627	2,789,167	2,059,627	2,789,167
<i>R</i> ²	0.397		0.395	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: mean or median log hourly earnings of White men in individual's occupation. Omitted category: White men. Men who are working in leadership occupations are dropped from the estimation. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. Columns (1) and (3) include all employed individuals who are not in leadership occupations and are estimated using an OLS regression. Columns (2) and (4) include all men who are not in leadership occupations and are estimated using a median regression. Non-employed individuals in column (2) given an imputed outcome value of the mean earnings of the occupation that has the lowest mean pay for White men, and non-employed individuals in column (4) given an imputed outcome value of the median earnings of occupation that has the lowest median pay for White men.

In contrast, results indicate that Black and Hispanic men work in sizably lower-paying occupations compared to White men. Black men work in jobs that are 17.3 percent lower paying than White men in terms of mean occupational pay and 17.1 percent lower paying than White men in terms of median occupational pay. Hispanic men work in jobs that are 2.8 percent lower paying than White men in terms of mean occupational pay and 2.7 percent lower paying than White men in terms of median occupational pay.

The findings in this section suggest that the lack of Asian representation in leadership positions is a phenomenon specific to leadership roles and not reflective of a general underrepresentation of Asian men in high-paying occupations. However, Black and Hispanic men are both less likely

occupations. However, as Appendix B indicates, management occupations are quite varied in nature, potentially making them less comparable to executive occupations. I have also estimated employment in high-paying occupations when excluding executive occupations but including management occupations. Results indicate Asian men work in slightly lower paying occupations compared to White counterparts with similar qualifications when looking at all occupations except executive ones. This suggests that racial differences in representation in management occupations play a contributing role in the lower earnings of Asian men and that management occupations provide a higher pay compared to alternative jobs held by workers with similar characteristics.

to work in leadership positions and less likely to work in non-leadership, high-paying positions, compared to White men with similar characteristics. This suggests that the barriers to leadership positions for Black and Hispanic men may be a result of larger structural barriers that prevent them from entering high-earning positions more broadly, whereas the gaps for Asian men appear to be unique to leadership positions.

These findings are further supported by analyses looking at racial and ethnic differences in earnings, which are presented in Appendix C. These findings indicate that Asian, Black, and Hispanic men all earn less than White men with similar qualifications. However, most of the earnings gap between Asian and White men occurs within occupation and industry, suggesting that these gaps may represent differences in the progression through the career pipeline. Intuitively, there may be various within-occupation career progressions before an individual is promoted to a managerial or executive position, and differences in progression within-race could be captured by earnings gaps within occupation and industry. In contrast, a sizable share of the gap in earnings between White men and Black and Hispanic men are driven by differences in occupation and industry of employment, suggesting the presence of barriers that prevent Black and Hispanic men from getting a foot in the door in certain fields.

4 Ethnic Subgroup Analysis

Asian Americans are often treated as a homogeneous group in policy discourse, and one criticism of this approach is that Asian Americans in reality represent a diverse group of individuals in terms of cultural background, immigration history, and socioeconomic status (E. Lee, 2015; J. Lee & Zhou, 2015). This section disaggregates the analysis of Asian Americans by ethnic subgroups to provide a more nuanced understanding of leadership representation among Asian Americans.

4.1 Descriptive Patterns and Labor Market Returns

I separate Asians into three regional ethnic subgroups, East Asians, Southeast Asians, and South Asian, using detailed racial background information provided in the ACS. I follow the regional groupings put forth by the Asian Pacific Institute on Gender-Based Violence, and the classification is shown in Table 5.¹⁶

Table 6 presents descriptive characteristics of Asian men in the sample by ethnic subgroup.

¹⁶<https://www.api-gbv.org/resources/census-data-api-identities/>

Table 5: Ethnic Subgroup Classification

Subgroup	Race Codes
East Asian	Chinese (52.7%), Japanese (26.7%), Korean (17.7%), Taiwanese (2.9%)
South Asian	Indian (87.1%), Pakistani (10.2%), Bangladeshi (1.3%), Sri Lankan (0.8%), Nepalese (0.5%), Bhutanese (0.1%)
Southeast Asian	Filipino (54.9%), Vietnamese (22.1%), Cambodian (6.2%), Hmong (8.2%), Laotian (4.4%), Thai (3.1%), Indonesian (0.7%), Burmese (0.3%), Malaysian (0.1%)

Classification of Asians into subgroups based on ACS self-reported race. The relative share of each specific ethnic group in the broader subgroup is reported in parentheses.

The top panel of the table shows substantial heterogeneity in sociodemographic characteristics among Asian subgroups. On average, all Asian subgroups are younger than White men, with the youngest being South Asians at 35.4 years and the oldest being East Asians at 40.8 years. All Asian subgroups demonstrate lower average English proficiency than White males. East Asian and South Asian men have higher levels of education on average compared to White men, while Southeast Asian men have a more similar educational attainment profile compared to White men. Asian men across groups are more heavily concentrated in the West relative to White men, and this is especially true for East and Southeast Asians. All Asian subgroups of men are also more likely to reside in metropolitan areas than White men.

The bottom panel of Table 6 displays labor market characteristics across Asian subgroups. All subgroups have higher employment than White men, with the employed share ranging from 89 percent for South Asians to 85 percent for East Asians. In terms of earnings, East and South Asian men earn more than White men on average, while Southeast Asian men earn less. Self-employment rates range from seven percent for White and South Asian men to three percent for Southeast Asian men. East and South Asian men are more likely to work in management positions than White men, while Southeast Asian men are less likely to do so. All differences are statistically significant at a 99 percent confidence level. In contrast, both East and South Asian men are statistically less likely to work in executive occupations than White men. South Asian men have a statistically higher propensity of working in executive positions compared to White men, although this difference is only significant at a 90 percent confidence level. East Asian men do not have a statistically different propensity to work in executive occupations. These descriptive trends suggest that there may be heterogeneity in leadership representation across different Asian subgroups, as well as heterogeneity along other factors that may affect labor market outcomes.

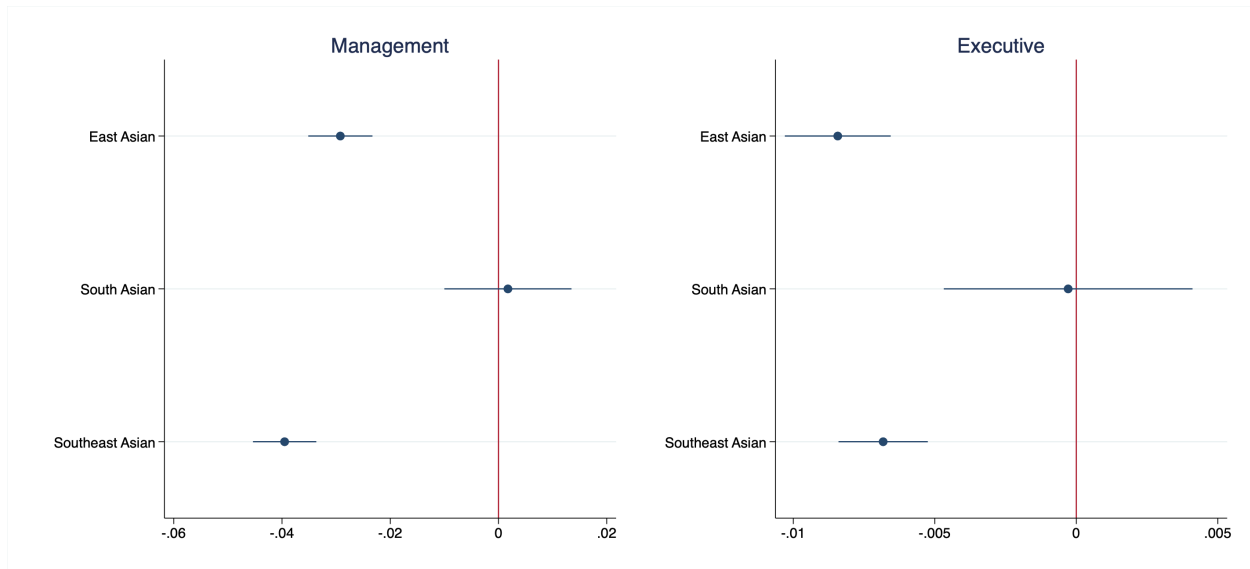
Table 6: Subgroup Characteristics

	White	Asian		
		East	South	Southeast
Age	45.59 (11.63)	40.80 (11.71)	35.35 (8.25)	35.79 (9.18)
Not completely English proficient	0.00	0.05	0.04	0.06
Education				
Less than high school	0.07	0.02	0.03	0.05
High school	0.29	0.09	0.07	0.20
Some college	0.29	0.19	0.13	0.32
Bachelor's degree	0.23	0.44	0.36	0.32
Graduate degree	0.12	0.26	0.41	0.11
Region				
Northeast	0.18	0.18	0.28	0.08
Midwest	0.27	0.07	0.16	0.11
South	0.35	0.12	0.29	0.18
West	0.20	0.63	0.26	0.62
Resides in metropolitan area	0.73	0.95	0.97	0.94
Employed	0.80	0.85	0.89	0.86
Hourly earnings (2019\$)	38.35 (141.98)	50.11 (97.71)	55.91 (59.76)	32.09 (35.34)
Self-employed	0.07	0.06	0.07	0.03
Management occupation	0.14	0.15	0.18	0.10
Executive occupation	0.016	0.013	0.020	0.005
<i>N</i>	2,487,770	18,545	5,377	13,033

Table includes US-born individuals ages 25-64 years old from 2015-2019, excluding individuals in school or the military. English proficiency is scored on a 5-category scale: 1: Does not speak English, 2: Yes, but not well, 3: Yes, speaks well, 4: Yes, speaks very well, 5: Yes, speaks only English. I categorize individuals as not completely proficient in English if they report a response of 1,2 or 3. Earnings, self-employment status, and occupation calculated from sample of employed individuals.

The next section measures differences in leadership occupation representation across subgroups after accounting for other differences across groups.

Figure 3: Subgroup Employment in Leadership Occupations



Graphs display linear probability model estimates for the magnitude of the difference in the propensity for Asian men from various subgroups to work in a management or executive occupation compared to White men with 95% confidence intervals. All specifications include controls for age, age squared, level of educational attainment, English proficiency, geographic location, and self-employment status. The samples include both employed and non-employed men, and individuals who are not employed are imputed as not being in management or executive positions. Control group mean (management)=0.115. Control group mean (executive)=0.013.

4.2 Empirical Analysis

Next, I assess differences in leadership representation across subgroups using Equation 1. Figure 3 displays estimation results using the full sample of men. The outcome of the estimation shown in the left graph is an indicator variable taking a value of one if an individual works in a management occupation and zero otherwise, and the graph on the right shows an analogous estimation for working in executive occupations. Results indicate East Asian and Southeast Asian men are significantly less likely to work in both a management and executive occupation compared to White men. In contrast, South Asian men do not differ in their propensity to work in a leadership occupation using either outcome measure of leadership. Table A3 in the appendix shows estimation results in table form for both the sample of working men and the full sample of men.

For a more detailed subgroup breakdown, I also analyze leadership representation by specific country of origin. Figure A1 in the appendix compares the propensity for working in a leadership occupation between White men and Asian men from the six Asian countries with the highest rep-

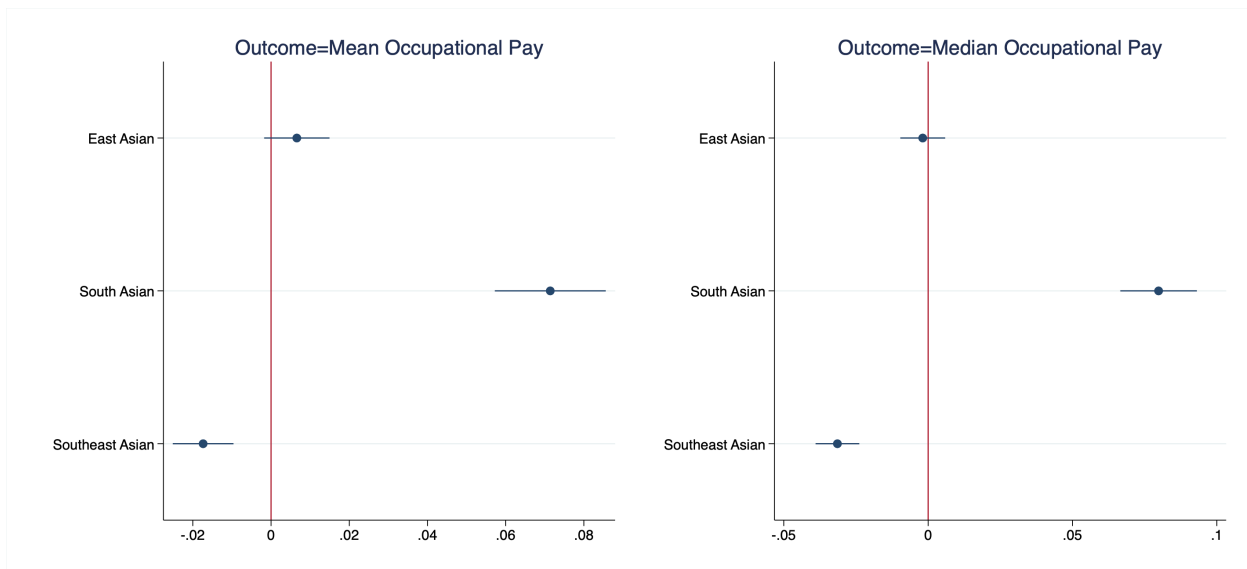
resentation in the sample: China, the Philippines, Japan, India, Korea, and Vietnam.¹⁷ Consistent with results in Figure 3, I find that men from all country-specific ethnic subgroups except India are significantly less likely to work in management and executive positions relative to White men. In contrast, Indian men do not differ from White men in their propensity to work in leadership occupations.

Next, I assess heterogeneity in the propensity to work in high-paying, non-leadership occupations by Asian subgroup using Equation 2 in Figure 4. The left graph displays coefficient estimates looking at racial differences in occupational pay, measuring occupational pay as the mean log hourly earnings of White men in the occupation. The right graph displays the same analysis using median log hourly earnings of White men as the measure of occupational pay. In both graphs, I find that for individuals not working in leadership occupations, the occupations East Asian men work in do not differ on average in occupational pay compared to the occupations White men work in, suggesting that the underrepresentation of East Asian men in management and executive positions is a phenomenon unique to these jobs. In contrast, Southeast Asian men work in lower paying occupations on average than White men, suggesting that their underrepresentation in leadership occupations may reflect larger structural barriers that prevent them from accessing high-paying jobs overall. South Asian men who are not employed in leadership occupations work in higher paying occupations than White counterparts on average. One interpretation of these results is that while South Asian men do not differ in their propensity to work in leadership occupations compared to White men, their representation in leadership is lower relative to their overrepresentation in other high-paying occupations. Table A4 in the appendix shows results of this analysis in table form.

Overall, results in this section indicate that the underrepresentation of Asian men in leadership occupations is not ubiquitous across subgroups. While East Asian and Southeast Asian men are less likely to work in management and executive occupations compared to White men with similar qualifications, I find no difference in the propensity for South Asian men to work in leadership occupations compared to White counterparts. The finding that there are no differences in leadership propensity between South Asian men and White men is striking and highlights the importance of disaggregating Asian Americans in understanding labor market outcomes for this group. There are many cultural and socio-political differences between Asian American ethnic subgroups that shape their experiences in the US, which require nuanced analyses to capture and

¹⁷Due to sample size limitations, I am unable to perform separate analyses for all Asian origin countries.

Figure 4: Subgroup Employment in High-paying, Non-leadership Occupations



Graphs display median regression estimates for difference in occupational pay level between Asian and White men for men not working in leadership occupations with 95% confidence intervals. All specifications include controls for age, age squared, level of educational attainment, English proficiency, geographic location, and self-employment status. The samples include both employed and non-employed men, and individuals who are not employed are imputed as having the mean or median occupational pay level of White men in the lowest-paying occupation.

understand.¹⁸

5 Mechanisms

To summarize, analyses find that US-born Asian men are significantly less likely to work in management and executive occupations compared to White counterparts with similar qualifications. However, Asian men are not less likely to work in high-paying, non-leadership occupations, suggesting this is a phenomenon unique to leadership roles. Furthermore, subgroup analyses indicate underrepresentation in leadership occupations is unique to East and Southeast Asian men. In contrast, South Asian men are not underrepresented in management or executive occupations. In this section, I explore possible mechanisms underlying these results. I categorize mechanisms broadly into two categories, *factors correlated with race* and *race-specific mechanisms*. For factors correlated with race, I examine the roles of self employment, ethnic attrition, and immigration generation in

¹⁸For example, the largest share of South Asians in the US come from India, which is a former British colony. Research has found that this colonization had profound economic, social, and cultural effects on India (Singh, 2016), which could in turn mean South Asian immigrants are more familiar with Western social and cultural norms regarding leadership culture.

driving leadership gaps between Asian and White men. For race-specific mechanisms, I provide a discussion of the roles of preferences, discrimination, and unobserved and/or uncontrolled for group differences in affecting leadership gaps.

5.1 Factors correlated with race

First, I examine the possibility that results are driven by self-employed individuals or by racial differences in selection into self-employment. This is an especially important consideration because self-employed men are significantly more likely to report working in a management or executive occupation than men who are employees.¹⁹ In the main estimation of leadership gaps in Table 3, I include a control for whether an individual is self-employed. One concern with this approach is that working in self-employed leadership positions do not necessarily reflect the same roles and processes as working in leadership positions in wage work environments.

To assess whether my findings are driven by self-employed men, I first re-estimate Equation 1, excluding self-employed men from the estimation. Columns 1 and 2 in the top panel of Table 7 display results of this analysis. Results using this specification produce similar estimates to those in Table 3, finding that Asian men are significantly less likely to work in management and executive positions compared to White men. The bottom panel displays estimation results by Asian ethnic subgroup, and results are also similar to main estimates in finding that East Asian and Southeast Asian men are less likely to work in leadership occupations while South Asian men do not differ from White men in their propensity to work in these jobs. I next assess whether gaps in leadership representation between Asian and White men are driven by racial differences in selection into self-employment. Since leadership rates differ significantly between self-employment and wage work jobs, selection could contribute to my findings if Asian men are more likely to select into self-employment, all else equal, perhaps in response to barriers in accessing leadership occupations in wage work jobs. In columns 3 and 4 of Table 7, I re-estimate Equation 1, reclassifying self-employed individuals as not working in a management or executive occupation, regardless of reported occupation. Results are similar to the main findings: I find that Asian men are significantly less likely to work in leadership occupations than White men with similar qualifications and that these gaps are present only for East Asian and Southeast Asian men. Taken together, estimation results in Table 7 indicate leadership gaps between Asian and White men are not driven

¹⁹ Among self-employed men, 26.2 percent report working in a management occupation and 5.6 percent report working in an executive occupation. In contrast, 12.6 percent of employee men report working in a management occupation and 1.1 percent report working in an executive occupation.

by self-employed individuals or selection into self-employment. For further analysis, I explicitly model selection into self-employment as an outcome. I estimate a multinomial logit model to assess racial gaps in leadership employment, and results are shown in Table A5 in the appendix. In addition to self-employment, outcomes include working in a non-self-employed leadership occupation and working in a non-self-employed, non-leadership occupation. These findings reaffirm that Asian men are significantly less likely to work in a leadership position than White men with similar qualifications.

Table 7: Employment in Leadership Positions: Alternative Methods of Addressing Self-Employment

	Employed men (excluding self-employed)		All men (self-employed imputed as non-leadership)	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Baseline	0.121	0.011	0.089	0.008
Asian	-0.033*** (0.002)	-0.007*** (0.001)	-0.028*** (0.002)	-0.006*** (0.001)
Black	-0.049*** (0.001)	-0.007*** (0.000)	-0.044*** (0.001)	-0.006*** (0.000)
Hispanic	-0.026*** (0.001)	-0.005*** (0.000)	-0.021*** (0.001)	-0.004*** (0.000)
East Asian	-0.036*** (0.004)	-0.010*** (0.001)	-0.030*** (0.003)	-0.008*** (0.001)
South Asian	-0.004 (0.007)	-0.001 (0.002)	-0.004 (0.006)	-0.001 (0.002)
Southeast Asian	-0.044*** (0.003)	-0.007*** (0.001)	-0.036*** (0.003)	-0.006*** (0.001)
<i>N</i>	2,223,671	2,223,671	3,110,069	3,110,069
<i>R</i> ²	0.066	0.018	0.074	0.016
Control mean	0.135	0.013	0.115	0.013

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive occupation. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, and state/metropolitan area of residence. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. Self-employed men are dropped from the sample for in columns 1 and 2, and self-employed men are re-categorized as not working in leadership management and executive occupations in columns 3 and 4, respectively. The top panel shows estimation results for aggregated racial and ethnic groups. The bottom panel shows estimation results that disaggregate Asians into ethnic subgroups. Black, Hispanic, and Asian men who do not fit into one of the subgroups are also included in this estimation, although coefficients are not displayed.

Next, I examine the role of ethnic attrition, i.e., the attrition in Asian self-identification by descendants of Asian immigrants, in the underrepresentation of Asians in leadership occupations. This analysis is motivated by prior research showing that ethnic attrition is sizable for Asian Americans starting in the second generation, defined as the first US-born generation (Duncan & Trejo, 2017).²⁰ This could affect measured racial gaps in leadership representation if individuals who attrit are non-randomly selected with respect to occupation outcomes. One way to assess the role of ethnic attrition is to use data on the birthplace of individuals' parents as an alternative, more "objective," measure of racial and ethnic origin. A limitation of the ACS is that information is not collected on the country of birth of respondents' parents. To circumvent this issue, I use data from the Current Population Survey (CPS) monthly surveys, which do contain this information. I restrict my sample to the first month an individual appears in the sample during this period to avoid collecting repeated observations of the same individual. While the CPS has the advantage of containing information on parents' birthplace, some disadvantages of this dataset compared to the ACS are that the ACS is a much larger sample and contains some key variables to this study that the CPS does not, namely English proficiency and field of college degree. As with the ACS, I restrict the sample to US-born men aged 25-64 from 2015-2019, excluding individuals currently in school or in the military.

Following previous work, I measure differences in outcomes between White and Asian men using self-reported measures of Asian identity, compared to an alternative measure of racial identity based on parents' country of birth (Duncan & Trejo, 2011, 2017). Since I define Asians in the ACS sample as individuals who identify as a single race and Asian, I categorize Asians in the CPS as people for whom both parents were born in an Asian country. A drawback of this robustness check is that this measure is limited to second-generation immigrants, since I am unable to trace individuals who are third-generation Asians or later.²¹ Another drawback is that an individual's parents may not be of Asian descent even if they were born in an Asian country, although this likely accounts for a negligible share of observations. The advantage of this approach is that it allows me to investigate the role of ethnic attrition in identity in driving differences in leadership employment for White men compared to second-generation Asian men.

Using CPS data, columns 1-4 in Table 8 assess differences in the propensity for Asian and White

²⁰ Attrition is most sizable for mixed race individuals, although still present for individuals with two Asian parents: five percent of second-generation children with two Asian parents and seven percent of third-generation children with two Asian parents do not self-identify as Asian.

²¹ To do so, I would need to know the countries of birth of individuals' grandparents, and this information is not contained in the CPS.

men to work in a leadership occupation, where Asian men are categorized based on self-reported race. Reassuringly, the estimates using CPS data are similar to the estimates using ACS data in Table 3. For the full sample of men, results in Table 8 indicate Asian men are 3.4 percentage points less likely to work in a management occupation and 1.0 percentage points less likely to work in an executive occupation compared to White men with similar characteristics. Next, columns 5-8 of Table 8 estimate racial gaps in leadership occupations using the alternative method of categorizing Asian Americans. Namely, I categorize individuals as Asian if both parents are born in an Asian country, regardless of how the individual self-identifies. If estimates using this “objective” measure of classifying Asian Americans produces very different results from those using self-reported Asian identity, this would suggest ethnic attrition plays a significant role in driving the main estimation results in Table 3. However, results in Table 8 indicate both methods of classifying Asian Americans produce very similar estimates. Using the parental birthplace classification method, I find that Asian men are 3.2 percentage points less likely to work in a management occupation and 1.0 percentage points less likely to work in an executive occupation compared to White men. These findings suggest that for second generation Asian Americans, who are currently the largest cohort of working age native-born Asian Americans, selective ethnic attrition does not play an important role in driving differences in leadership employment rates between Asian and White men.

Table 8: Employment in Leadership Positions Using Different Methods to Classify Asians

	Employed men		All men		Employed men		All men	
	Mgmt. (1)	Executive (2)	Mgmt. (3)	Executive (4)	Mgmt. (5)	Executive (6)	Mgmt. (7)	Executive (8)
Asian (self-reported)	-0.037*** (0.006)	-0.011*** (0.002)	-0.034*** (0.005)	-0.010*** (0.002)				
Asian (parents' birthplace)					-0.034*** (0.008)	-0.011*** (0.002)	-0.032*** (0.007)	-0.010*** (0.002)
<i>N</i>	205,232	205,232	250,798	250,798	202,066	202,066	246,915	246,915
<i>R</i> ²	0.169	0.019	0.139	0.016	0.169	0.019	0.139	0.016
Control mean	0.067	0.022	0.075	0.020	0.067	0.022	0.075	0.020

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Table is estimated using CPS data. The sample in columns 1-4 is restricted to individuals who self-identify as White or Asian. The sample in columns 5-8 is restricted to individuals who self-identify as White or individuals who have two parents born in an Asian country. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, education level, state/metropolitan area of residence, and self-employment. For the sample of all men, unemployed individuals are imputed as not being in management or executive positions.

Finally, I explore the role of immigration recency differences across races in driving leadership gaps. US-born Asians have been in the US for significantly fewer generations than US-born Whites on average. Immigration recency could affect the propensity for individuals to work in a

leadership occupation through channels such as assimilation or access to social networks, which could operate independently of race or ethnic background. To assess this channel, I use CPS data to compare the propensity of working in a leadership occupation between White men whose parents were born in the US with White men whose parents were born outside of the US. Table 9 displays the results of this analysis. Results indicate that second generation White men in the US do not experience underrepresentation in leadership occupations compared to White men with US-born parents. In fact, I find that White second-generation men have a slightly higher propensity to work in a management occupation than White men with US born parents, although these results are only weakly significant. Furthermore, the two groups do not differ in their propensity of working in an executive position. These findings suggest that the gap in leadership representation between Asian men and White men is not due to differences in immigration recency between the groups.

Table 9: Employment in Leadership Positions: Comparing White Men with US-born Parents to Second Generation White Men

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
White (second generation)	0.019** (0.009)	0.000 (0.004)	0.013* (0.007)	0.000 (0.003)
<i>N</i>	193,852	193,852	237,123	237,123
<i>R</i> ²	0.068	0.022	0.076	0.020
Control mean	0.168	0.019	0.138	0.015

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Table is estimated using CPS data. The sample restricted to individuals who self-identify as White whose parents were both born in the US or both outside of the US. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men with US-born parents. All specifications include controls for age, age squared, education level, state/metropolitan area of residence, and self-employment. For the sample of all men, unemployed individuals are imputed as not being in management or executive positions.

In a related analysis, I investigate whether subgroup heterogeneity in the propensity to work in a leadership occupation can be explained by average differences across Asian subgroups in immigration recency. Since historical immigration timelines differ across Asian subgroups (Paik, Kula, Saito, Rahman, & Witenstein, 2014), subgroup heterogeneity in leadership representation could reflect immigration generation differences. To assess this, I once again use the CPS data to take advantage of information on parents' birthplaces to compare occupation outcomes of second-generation immigrants across different ethnic subgroups. Table 10 displays the results of this

analysis. Results indicate that for second-generation Asian immigrants, similar gaps emerge as those using the full sample. Namely, East and Southeast Asian men are significantly less likely to work in leadership occupations compared to White men, while South Asian men do not differ in their propensity to work in a leadership occupation relative to White men. These findings suggest that subgroup heterogeneity in leadership representation is not driven by differences in immigration recency between various Asian subgroups.

Table 10: Asian Subgroup Employment in Leadership Positions: Restricting to Second Generation

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
East Asian	-0.027** (0.013)	-0.014*** (0.004)	-0.027** (0.012)	-0.012*** (0.003)
South Asian	-0.002 (0.018)	-0.001 (0.008)	-0.007 (0.016)	-0.001 (0.007)
Southeast Asian	-0.060*** (0.010)	-0.017*** (0.002)	-0.052*** (0.009)	-0.014*** (0.002)
<i>N</i>	202,001	202,001	246,832	246,832
<i>R</i> ²	0.067	0.022	0.075	0.020
Control mean	0.169	0.019	0.139	0.016

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Table is estimated using CPS data. The sample restricted to individuals who self-identify as White or whose parents were both born in an East Asian, South Asian, or Southeast Asian country. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, education level, state/metropolitan area of residence, and self-employment. For the sample of all men, unemployed individuals are imputed as not being in management or executive positions. In the bottom panel, Black, Hispanic, and Asian men who do not fit into one of the subgroups are also included in the estimation, although coefficients are not displayed for these groups.

In sum, the analyses in this section provide compelling evidence that rule out certain channels as driving the gap in leadership representation between White and Asian men. Specifically, findings suggest that the underrepresentation of Asian men in leadership occupations represents a meaningful racial gap that is not explained by self-employed individuals or selection into self-employment, selective attrition from Asian self-identification, or differences in immigration recency across races or Asian ethnic subgroups.

5.2 Race-specific mechanisms

The analysis in the previous section provides suggestive evidence ruling out various channels in driving racial gaps in leadership representation between Asian and White men. This section looks at remaining mechanisms, namely the roles of preferences, discrimination, and unobserved differences. One possibility is that this gap is due to racial differences in preferences for leadership occupations, resulting from differences in tastes or comparative/absolute advantages. A second possibility is that this gap could reflect racial discrimination in the workplace, which could be taste-based or stereotype-based in nature.²² For example, Lin, Kwan, Cheung, and Fiske (2005) find that Asian Americans are perceived to have low sociability, and Arcidiacono et al. (2022) find that Asian American applicants to Harvard are assigned lower personal score ratings compared to White applicants. Finally, other unmeasured characteristics that are correlated with race could also be contributing to the underrepresentation of Asian men in leadership positions, such as cultural differences in how individuals are socialized to interact in the workplace.

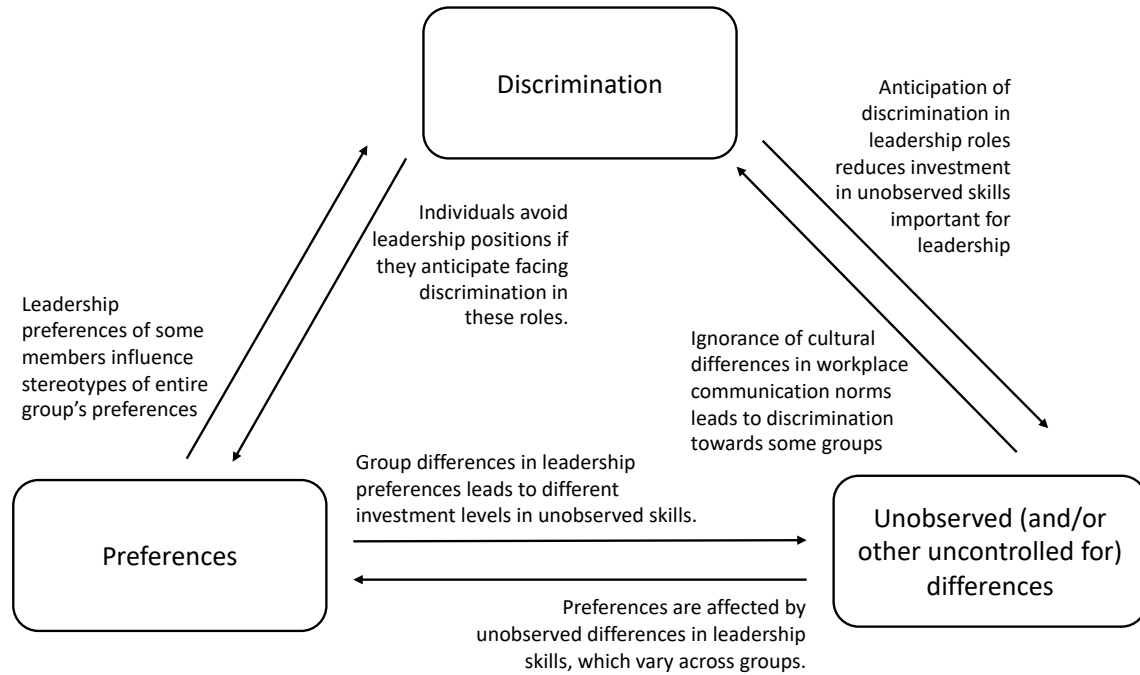
It is important to note that these channels are not mutually exclusive. The underrepresentation of Asian men in leadership roles may be the result of a combination or interaction of factors. For example, individuals may shift preferences away from leadership positions if they know they will be discriminated in pursuing or occupying these positions. As another example, discrimination can evolve in response to a lack of awareness of cultural differences in workplace communication norms. Additionally, Asian men may invest differently in leadership skills that are unobserved to the econometrician based on their preferences for working in a leadership position. Figure 5 illustrates the interrelated nature of these channels with examples.

5.2.1 Preferences

Although the interrelated nature of mechanisms makes it difficult to cleanly disentangle the relative role of each factor, this section provides some analyses to shed light on mechanisms. First, I assess whether there is evidence that part of the reason Asian American men may be underrepresented in leadership occupations is that they have a lower preference for working in these roles. As one assessment, I look to individuals with bachelor's degrees and measure whether gaps in leadership representation between White and Asian men differ by field of study. Intuitively, if the

²²Stereotype-based channels of discrimination include but are not limited to models such as standard statistical discrimination (Arrow, 1973; Phelps, 1972) or systematic stereotype-based misperceptions (Bordalo, Coffman, Gennaioli, & Shleifer, 2016; Conlon & Patel, 2003).

Figure 5: Potential Relationships between Mechanisms Influencing Leadership Representation



racial gap in leadership representation is driven by average differences in preferences, I would expect these gaps to be smaller within degree fields that are geared towards leadership roles, such as Business Management and Administration, since those who select into these degrees presumably have a high preference for working in leadership. To the extent that there are racial differences in leadership preferences, I expect a large portion of these differences to be captured at the extensive margin of major selection.

Using information on the 174 unique detailed degree field codes in the ACS, I classify whether degrees feed into leadership occupations using two methods of classification, manual and data-driven. Manual categorizations of leadership feeder majors include all detailed degree fields that contain the words “management” or “supervision” in their title. Data-driven categorizations of leadership feeder majors into management or executive occupations include the top 10 degrees that are most likely to lead to working in a management or executive occupation, respectively. To obtain this measure, I regress an indicator for whether an individual works in a leadership occupation on their degree, conditional on age, age-squared, self-employment status, state+metropolitan area of residence, and English proficiency, in order to identify the degrees that contribute the most to working in a leadership occupation. A list of the degree fields classified as leadership feeder majors using both methods are in Table A6 in the appendix.

Table 11 shows results of the analysis looking at whether the racial gap in working in leadership occupations between Asian and White men is smaller for individuals with degrees in leadership feeder majors. The outcome of interest in columns 1-3 is an indicator for whether an individual works in a management occupation, and the outcome of interest in columns 4-6 is an indicator for whether an individual works in an executive occupation. The top panel displays aggregate race results, while the bottom panel breaks out findings by subgroups. Estimates in columns 1 and 4 replicate main results estimating racial leadership gaps on the sample of individuals with a bachelor's degree or higher and using detailed degree field controls. As in the main results in Table 3, I find that Asian men are less likely to work in management and executive occupations relative to White counterparts with similar qualifications.²³ The subgroup analysis is also consistent with results using the main sample, finding that East Asian and Southeast Asian men are less likely to work in leadership occupations than White men while South Asian men are not.

Next, columns 2 and 4 assess whether gaps in leadership representation differ based on whether individuals hold a degree in a leadership feeder major using the manual classification of feeder majors. I find that the gap in leadership representation between White and Asian men is actually larger for individuals who hold a degree in a feeder major. For individuals with degrees in non-feeder majors, Asian men are 2.7 percentage points less likely to work in a management occupation relative to White counterparts. In contrast, for individuals with degrees in feeder majors, Asian men are 6.0 percentage points less likely to work in a management occupation relative to White counterparts. I find no difference in the propensity for Asian men to work in executive occupations relative to White men by leadership feeder major status. Using the data-driven classification of leadership feeder majors, I find no difference in the propensity for Asian men to work in management occupations relative to White men by leadership feeder major status and some weakly significant estimates that the racial gap in executive representation may be larger in feeder majors. Overall, these results do not indicate racial gaps in the propensity to work in a leadership occupation are smaller for individuals who chose to major in a field geared towards leadership. Individuals who select into leadership feeder majors likely have higher preferences for working in leadership relative to the general population, and a sizable portion of racial dif-

²³One potential concern with this analysis is that there may be differential selection into feeder majors by race. In particular, if Asians are more likely to select into feeder majors due to factors such as familial pressure, it may be the case that Asian students in these majors are on average less qualified for or less interested in the types of jobs these majors are geared towards. Table A7 in the appendix shows the racial distribution of students across the different classifications of feeder majors. I find no evidence overall that Asian men sort into feeder majors at higher rates than White men in this sample.

Table 11: Racial Gaps in Employment in Leadership Positions by Major Type

Outcome: Feeder definition:	Management			Executive		
	(1)	Manual (2)	Data (3)	(4)	Manual (5)	Data (6)
Asian	-0.030*** (0.003)	-0.027*** (0.003)	-0.030*** (0.003)	-0.008*** (0.001)	-0.007*** (0.001)	-0.008*** (0.001)
Asian×Feeder Major		-0.033*** (0.012)	-0.000 (0.008)		-0.006 (0.004)	-0.011* (0.006)
<i>N</i>	968,664	968,664	968,664	968,664	968,664	968,664
R ²	0.041	0.041	0.041	0.014	0.014	0.014
Control mean	0.195	0.195	0.195	0.026	0.026	0.026
East Asian	-0.032*** (0.004)	-0.031*** (0.004)	-0.033*** (0.004)	-0.009*** (0.001)	-0.009*** (0.001)	-0.009*** (0.001)
South Asian	0.004 (0.007)	0.005 (0.007)	-0.001 (0.007)	0.002 (0.003)	0.002 (0.003)	0.003 (0.003)
Southeast Asian	-0.048*** (0.005)	-0.043*** (0.006)	-0.042*** (0.006)	-0.010*** (0.002)	-0.009*** (0.002)	-0.010*** (0.002)
East Asian×Feeder Major		-0.016 (0.017)	0.004 (0.011)		-0.001 (0.006)	0.001 (0.012)
South Asian×Feeder Major		-0.011 (0.036)	0.025 (0.020)		0.003 (0.017)	-0.031*** (0.004)
Southeast Asian×Feeder Major		-0.068*** (0.019)	-0.042** (0.018)		-0.017*** (0.002)	-0.022*** (0.003)
<i>N</i>	968,664	968,664	968,664	968,664	968,664	968,664
R ²	0.041	0.041	0.041	0.014	0.014	0.014
Control mean	0.195	0.195	0.195	0.026	0.026	0.026

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. The sample includes all men with at least a bachelor's degree, and unemployed individuals are imputed as not being in management or executive positions. Race and ethnicity controls for Black and Hispanic men and interactions with being in a feeder major are included in the estimations, although coefficient estimates are not displayed in the table. All specifications include controls for age, age squared, education level, detailed degree field, English proficiency, state/metropolitan area of residence, and self-employment status.

ferences in preferences should be captured at the extensive margin of major selection. Thus, the finding that racial gaps in leadership representation are not mitigated within leadership feeder majors suggests racial differences in preferences for leadership positions may not be a key driver in the underrepresentation of Asian men in these roles.

As a second assessment of the role of preferences, I bring in data from the National Survey of College Graduates (NSCG) for 2015, 2017, and 2019. The NSCG is a cross-sectional biennial survey of US college graduates, and surveyed individuals are identified through a stratified systematic sampling of ACS respondents. A benefit of the NSCG is that the survey asks questions directly pertaining to individuals' valuation for job advancement, which I use as a measure of valuation

for leadership roles. I focus on men in the NSCG between 25-64 years old who are currently not in school. I assess racial differences in responses to three different survey questions. The first measure I look at is an indicator variable that takes a value of one if an individual reports that during job search, a job's opportunities for advancement are very important and zero otherwise.²⁴ The second measure I look at is satisfaction with current job, using an indicator variable that takes a value of one if an individual reports being very satisfied with their current job and zero otherwise.²⁵ The third measure I assess is satisfaction with an individual's current job's opportunities for advancement, using an indicator variable that takes a value of one if an individual reports being very satisfied with their current job's opportunities for advancement and zero otherwise.²⁶ I regress these measures on race to assess whether Asian men and White men differ in their valuations for job advancement and satisfaction. Estimations include controls for age, highest degree level, degree field, geographic region, survey year, and self-employment status.

Table 12 displays estimation results of this analysis. Column 1 assesses racial differences in the importance of a job's opportunities for advancement when considering a job. I find no evidence that Asian men value advancement less than White men when looking for jobs, and estimates indicate that Asian men are slightly more likely to respond that a job's opportunities for advancement are very important, although results are imprecisely estimated. Next, column 2 looks at racial differences in individuals' satisfaction with their current jobs. Asian men are 5.7 percentage points less likely to report being very satisfied with their current job compared to White men. Results in column (3) indicate that Asian men are 5.0 percentage points less likely to report being very satisfied with their current job's opportunities for advancement compared to White men.²⁷ To the extent that leadership jobs represent the top-level jobs in many fields, this analysis suggests that college-educated Asian men do not display a lower preference for leadership occupations compared to White men. The fact that Asian men are less satisfied with their current job's opportunities for advancement may be indicative of dissatisfaction due to discrimination or other

²⁴The survey questionnaire asks, "When thinking about a job, how important is each of the following factors to you?—Importance of job's opportunities for advancement." Response options include, "1= very important, 2=somewhat important, 3= somewhat unimportant, 4= not important at all."

²⁵The survey questionnaire asks, "How would you rate your overall satisfaction with the principal job you held during the week of February 1, 2019?" Response options include, "1=very satisfied, 2=somewhat satisfied, 3=somewhat dissatisfied, 4=very dissatisfied."

²⁶The survey questionnaire asks, "Thinking about your principal job held during the week of February 1, 2019, please rate your satisfaction with that job's opportunities for advancement." Response options include, "1=very satisfied, 2=somewhat satisfied, 3=somewhat dissatisfied, 4=very dissatisfied."

²⁷All results are robust to the inclusion of occupation fixed effects, although occupations are more coarsely and less precisely measured in the NSCG than in the ACS.

unobserved factors that prevent them from achieving desired career advancement.

Table 12: Racial Differences in Job Advancement and Satisfaction Ratings

Outcome:	Advancement Very Important (1)	Very Satisfied with Job (2)	Very Satisfied with Advancement (3)
Asian	0.042* (0.022)	-0.057** (0.024)	-0.050*** (0.019)
Black	0.221*** (0.018)	-0.060*** (0.020)	0.028 (0.019)
Hispanic	0.142*** (0.017)	0.007 (0.018)	0.019 (0.017)
<i>N</i>	80,344	74,758	74,758
R^2	0.096	0.036	0.044
Control mean	0.422	0.467	0.268

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Sample includes men from the 2015, 2017, and 2019 NSCG surveys who are between 25-64 years who are currently not in school. All results are estimated using linear probability models. Omitted category: White men. The outcome in column 1 is an indicator variable taking a value of one if individuals report that when looking for a job, a job's opportunities for advancement are very important and zero otherwise. The outcome in column 2 is an indicator variable taking a value of one if individuals report being very satisfied with their current job and zero otherwise. The outcome in column 3 is an indicator variable taking a value of one if individuals report being very satisfied with their current job's opportunities for advancement and zero otherwise. The sample in columns 2-3 is restricted to the sample of employed men. All specifications include controls for age, age squared, highest degree level, degree field, region of residence, survey year, and self-employment status.

5.2.2 Unobserved differences

Next, I examine the role of various factors that are unobserved in the main specification in driving gaps in leadership representation. One possible channel is that intergenerational transmission plays a role in contemporary leadership gaps. Individuals with parents or other family members who worked in leadership positions may be better positioned to work in these roles either through nepotistic network connections or the transfer of leadership-relevant human capital. A limitation of the cross-sectional nature of the ACS data is that I am unable to track individuals or families over time. Thus, I examine intergenerational effects by approximating the parental generation of the contemporary sample. Specifically, since I examine individuals who are 25-64 between 2015-2019, I look one generation back at individuals who are 25-64 in the 1990 Census,

25-29 years earlier.²⁸ I include both native-born and foreign-born individuals in my analysis of the parental generation, since both groups may have native-born children. If intergenerational transmission plays a role, I expect to see similar racial patterns in leadership in the parents' generation, although this does not rule out other channels. I focus on management occupations only in this analysis because data are not available for executive occupations in 1990. I estimate Equation 1 on this sample, with the exception of excluding degree field controls, which are unavailable in the 1990 sample. Table 13 presents estimations of racial differences in management occupations, with column 1 showing results for employed men and column 2 showing results for all men. For the 1990 sample, as in the contemporary native-born sample, Asian men are significantly less likely to work in leadership occupations compared to White men with similar qualifications. However, a different pattern emerges when looking at Asian subgroups. For the 1990 sample, Southeast Asians are significantly less likely to work in management occupations compared to White men, consistent with contemporary gaps. However, I find that East Asians do not differ in their propensity to work in leadership occupations, while South Asian men are significantly less likely to work in leadership occupations. These results differ from the gaps observed in the contemporary native-born sample, indicating that while intergenerational transmission may play a role, it is unable to fully explain the racial patterns in leadership representation observed today.

Next, I assess whether racial differences in leadership rates among men can be explained by racial differences in spousal characteristics. If Asian men are more likely to marry partners who are career oriented, they may be less likely to hold leadership positions due to more emphasis being put on their spouses' careers. Black et al. (2008) observe that for college-educated women, Asian women tend to pursue majors that align more closely with those typically chosen by men, compared to White, Black, and Hispanic counterparts. Asian women are also more likely to have professional degrees. Furthermore, Table A8 in the appendix indicates there is a sizable amount of assortative racial matching in marriage. For the sample of married Asian men, 67 percent are married to Asian spouses, compared to two percent of married White men. The table also shows that Asian men have more educated spouses on average and that their spouses are more likely to be employed and have higher earnings conditional on employment.

Table 14 assesses racial differences in leadership propensity after controlling for spouses' characteristics. Specifically, I include controls for whether an individual is married and for those who are married, detailed controls for spouse's educational attainment, degree field, and employment

²⁸I use the 1990 Census 5% sample for this analysis.

Table 13: Employment in management positions for Asian men (US-born and foreign-born) in 1990

	Employed men (1)	All men (2)
Asian	-0.027*** (0.002)	-0.023*** (0.001)
<i>N</i>	1,958,007	2,421,972
R ²	0.069	0.055
Control mean	.131	0.109
East Asian	-0.000 (0.002)	-0.000 (0.002)
South Asian	-0.035*** (0.004)	-0.029*** (0.003)
Southeast Asian	-0.064*** (0.002)	-0.053*** (0.002)
<i>N</i>	1,958,007	2,421,972
R ²	0.069	0.056
Control mean	.131	0.109

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Outcome: whether the individual works in a management occupation. All results are estimated using linear probability models. Omitted category: White men. Sample includes White and Asian men between 25-64 in the 1990 5% Census who are not in school or the military. I impute individuals who are not employed as not working in a management or executive occupation. All specifications include controls for age, educational attainment, English proficiency, state/metropolitan area of residence, and self-employment status.

status. For the full sample, I find that Asian men are 2.2 percentage points less likely to work in a management occupation and 0.5 percentage points less likely to work in an executive occupation compared to White men with similar qualifications and spousal characteristics. Compared to the main estimation results in Table 3, results are slightly attenuated, although still very similar in magnitude.²⁹

Table 15 restricts the estimation of leadership gaps to single men in the sample. The baseline propensities for single men to be employed in leadership occupations is lower than that of the full sample of both single and married men, as reported in the control group mean values in the ta-

²⁹In the main specification, without including controls for spousal characteristics, I find that Asian men are 2.8 percentage points less likely to work in a management occupation and 0.6 percentage points less likely to work in an executive occupation compared to White men with similar qualifications.

Table 14: Employment in Leadership Positions: Controlling for Spouse Characteristics

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Baseline	0.130	0.013	0.101	0.010
Asian	-0.025*** (0.002)	-0.006*** (0.001)	-0.022*** (0.002)	-0.005*** (0.001)
Black	-0.043*** (0.001)	-0.006*** (0.000)	-0.038*** (0.001)	-0.005*** (0.000)
Hispanic	-0.025*** (0.001)	-0.004*** (0.000)	-0.021*** (0.001)	-0.004*** (0.000)
Spouse characteristics	Y	Y	Y	Y
<i>N</i>	2,380,528	2,380,528	3,110,068	3,110,068
<i>R</i> ²	0.074	0.026	0.070	0.019
Control mean	0.145	0.016	0.115	0.013

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, self-employment status, and spousal characteristics. Spousal characteristics include marital status and, for those who are married, spousal educational attainment, spousal degree field, and spousal employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions.

ble. Specifically, in the sample of both single and married men, Table 3 indicates that 11.5 percent of White men are employed in management occupations, and 1.3 percent of White men are employed in executive occupations. In contrast, Table 15 indicates 6.2 percent of single White men are employed in management occupations and 0.39 percent are employed in executive occupations. I find that single Asian men are 1.4 percentage points less likely to work in a management occupation compared to single White counterparts, a 23 percent decrease from the baseline. Asian men are 0.26 percentage points less likely to work in an executive occupation, a 67 percent decrease from the baseline. Overall, the similarity of estimates controlling for spousal characteristics and restricted to single men with the estimates to those of the main specification suggest that spousal characteristics largely do not account for leadership differences between Asian and White men.

Finally, I investigate the role of racial differences in geographical mobility as a contributing factor to leadership gaps. As shown in Table 1, there are large differences in geographical sorting patterns by race. In particular, Asian men are significantly more likely to live in the West and much less likely to live in the South or Midwest, compared to White men. They are also much more

Table 15: Employment in Leadership Positions: Single Men

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Asian	-0.017*** (0.003)	-0.003*** (0.001)	-0.014*** (0.003)	-0.003*** (0.001)
Black	-0.034*** (0.001)	-0.003*** (0.000)	-0.028*** (0.001)	-0.003*** (0.000)
Hispanic	-0.017*** (0.002)	-0.002*** (0.000)	-0.013*** (0.001)	-0.001*** (0.000)
<i>N</i>	885,007	885,007	1,300,893	1,300,893
<i>R</i> ²	0.052	0.018	0.045	0.010
Control mean	0.086	0.006	0.062	0.004

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions.

likely to live in a metropolitan area. There are a number of ways in which geographical sorting may contribute to estimated leadership gaps. For example, Asian men may be less willing to move for leadership opportunities if they have a higher preference for residing in an area with a higher Asian population share. Alternatively, Asian men may sort into areas where leadership gaps are lower, or a larger Asian population in an area could itself lower leadership gaps due to factors such as lower discrimination or greater awareness of cultural differences in communication. It could also be the case that Asian men tend to reside in places where there are a higher or lower share of leadership positions relative to other types of jobs.

Table 16 looks at leadership gap separately by tercile of Asian population share in an area, as calculated by the share of Asians in an individual's metropolitan statistical area (MSA) of residence.³⁰ A comparison of baseline means across terciles of Asian population share indicates that areas with higher Asian population shares also have a higher share of individuals working in leadership occupations, on average. For the sample of all men, 14.5 percent of White men in tercile 3 work in management occupations and 1.8 percent work in executive occupations. In contrast, only 8.6 percent of men in tercile 1 work in management occupations and 0.8 percent work in executive

³⁰For individuals who do not live an MSA, I calculate this value as the share of Asians in all non-MSA areas of the state in which an individual resides.

occupations.

Table 16: Employment in Leadership Positions by Asian Population Tercile

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
<u>Tercile 1</u>				
Asian	-0.021** (0.010)	-0.003 (0.003)	-0.022*** (0.008)	-0.003 (0.002)
<i>N</i>	756,981	756,981	1,042,366	1,042,366
<i>R</i> ²	0.071	0.021	0.056	0.014
Control mean	0.114	0.010	0.086	0.008
<u>Tercile 2</u>				
Asian	-0.020*** (0.006)	-0.004** (0.002)	-0.020*** (0.005)	-0.003*** (0.001)
<i>N</i>	805,716	805,716	1,042,705	1,042,705
<i>R</i> ²	0.068	0.024	0.063	0.017
Control mean	0.143	0.015	0.115	0.012
<u>Tercile 3</u>				
Asian	-0.032*** (0.003)	-0.008*** (0.001)	-0.030*** (0.002)	-0.007*** (0.001)
<i>N</i>	817,832	817,832	1,024,998	1,024,998
<i>R</i> ²	0.064	0.026	0.062	0.018
Control mean	0.176	0.022	0.145	0.018

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions.

After adjusting for baseline differences in leadership propensity across geographies, results are ambiguous regarding the relationship between Asian population share and leadership gap magnitudes. For the sample of all men, Asian men in tercile 1 are 2.2 percentage points less likely to work in a management occupation, a 26 percent decrease from the baseline. The coefficient estimate suggests they are 0.3 percentage points less likely to work in executive occupations, although this estimate is not statistically significant. Asian men in tercile 2 are 2.0 percentage points less likely to work in a management occupation, a 17 percent decrease from the baseline. Additionally, they are 0.3 percentage points less likely to work in an executive occupation, a 25 percent

decrease from the baseline. Asian men in tercile 3 are 3.0 percentage points less likely to work in a management occupation, a 21 percent decrease from the baseline. They are 0.7 percentage points less likely to work in an executive occupation, a 39 percent decrease from the baseline.

Next, Table 17 assesses differences in migration patterns by race. The ACS collects data on whether individuals in this sample have migrated in the past year, and if so, information on their location one year ago. Column 1 assesses racial differences in migration propensity (measured as moving into a new state or metropolitan area) and whether these propensities vary by the Asian population share of an area. As in Table 16, Asian population share is calculated by the share of Asians in an individual’s MSA of residence (or the share of Asians in all non-MSA areas of the state in which an individual resides if they do not live in an MSA). I normalize the Asian population share of an area to have a mean of zero and standard deviation of 1. Results indicate that Asian men living in an area with an average Asian population share one year ago are more likely to have moved to a different state/metropolitan area over the course of the year. However, Asian men in areas with a higher Asian population share are less likely to have moved. Specifically, a one standard deviation increase in Asian population share in an MSA is associated with a decrease in migration propensity by 0.6 percentage points. This finding is consistent with a story that a portion of leadership gaps could be explained by a lower willingness of Asian men to move to leadership jobs if they prefer to stay in areas with a higher Asian population share.

Table 17: Migration Propensity Differences by Race

	Migrate (1 year)	Migrate high→low	Migrate low→high
Asian	0.004** (0.002)	0.002** (0.001)	-0.007*** (0.001)
Share State-Metro Asian (1 year ago)	0.017*** (0.002)		
Asian×Share State-Metro Asian (1 year ago)	-0.006*** (0.000)		
<i>N</i>	3,102,697	3,110,069	3,110,069
<i>R</i> ²	0.031	0.025	0.042
Control mean	0.046	0.012	0.014

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor’s degree), English proficiency, state/metropolitan area of residence, and self-employment status, as well as a full set of race/ethnicity controls (that are also interacted with Asian share in column 1). For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. The outcome in column 1 is an indicator variable that takes a value of one if an individual does not reside in the same state and metropolitan area that they were residing in the prior year. The outcome in column 2 is an indicator variable that takes a value of one if the individual moved to a metropolitan area that is in a lower tercile of Asian population than their original tercile. The outcome in column 3 is an indicator variable that takes a value of one if the individual moved to a metropolitan area that is in a higher tercile of Asian population than their original tercile.

To further investigate this channel, column 2 looks at differences in the propensity to migrate from a higher Asian share tercile to a lower Asian tercile between Asian and White men. I find that Asian men are actually *more* likely to move from a tercile with a higher share of Asians to a tercile with a lower share of Asians, which is less consistent with the idea that Asian men may have a lower willingness to move to areas with a lower Asian population share. Similarly, in column 3, I find that Asian men are less likely to move from a tercile with a lower share of Asians to a tercile with a higher share of Asians. Overall, these findings do not suggest that a lower willingness to move to areas with a lower Asian population share is contributing to overall leadership gaps between White and Asian men.

5.2.3 Selection

Next, this paper uses sensitivity analysis tools to provide insight on the role of unobservable characteristics as opposed to discrimination in contributing to racial leadership gaps. I use the method developed in Oster (2019) to assess the effects of omitted variables on results. This method provides information on how robust coefficient estimates are to selection on unobservables by using information on the stability of coefficients to the inclusion of observed control variables, in conjunction with information on how much these controls contribute to explaining the outcome of interest. Specifically, using this method, I provide two assessments of selection on unobservable characteristics. First, I provide bounds of coefficient estimates that bound estimates with no selection on unobservables on one end and an equal degree of selection on unobservables to selection on observables on the other end of the bound. Second, I report the breakdown point, which informs the largest amount of selection on unobservables relative to selection on observables that is needed to overturn the coefficient estimate.

Table 18 presents sensitivity analysis results. For the sample of employed men, the coefficient estimate indicates Asian men are 3.0 percentage points less likely to work in a management occupation than White men with the same observable characteristics. I find the breakdown point to be -15.3 percent, and bounds estimates actually place the coefficient estimate as the upper bound, from -3902.1 percentage points to -3.0 percentage points. The fact that setting selection on unobservables equal to selection on observables moves estimates in a more negative direction and that the breakdown point is a negative value indicates that the pattern of selection on observables seen in the data on the whole leads estimated leadership gaps to be more negative for Asian men. For example, the inclusion of education controls makes the estimated negative leadership gap larger

because Asian men are more educated on average than White men, and higher education is associated with a higher propensity for leadership, on average. I find qualitatively similar results for working in an executive occupation. The breakdown point is -20.2 percent, and the lower bound is more negative than the negative point estimate. For the sample of all men, the breakdown points are -7.3 percent and -5.3 percent for working in a management occupation or executive occupation, respectively.

Table 18: Employment in Leadership Positions: Selection Analysis

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Asian	-0.030*** (0.002)	-0.007*** (0.001)	-0.028*** (0.002)	-0.006*** (0.001)
Bounds	[-39.021,-.030]	[-69.624,-0.007]	[-23.885,-0.028]	[-41.129,-0.006]
Breakdown point	-15.3%	-20.2%	-7.3%	-5.3%
Black	-0.051*** (0.001)	-0.008*** (0.000)	-0.047*** (0.001)	-0.006*** (0.000)
Bounds	[-0.051,2.187]	[-0.008,2.615]	[-0.047,2.928]	[-0.006,2.969]
Breakdown point	11.2%	2.9%	1.0%	2.0%
Hispanic	-0.028*** (0.001)	-0.005*** (0.000)	-0.023*** (0.001)	-0.004*** (0.000)
Bounds	[-0.028,26.641]	[-0.005,17.727]	[-0.023,28.329]	[-0.004,18.552]
Breakdown point	2.8%	0.9%	2.6%	0.7%
<i>N</i>	2,380,529	2,380,529	3,110,069	3,110,069
<i>R</i> ²	0.069	0.024	0.063	0.017
Control mean	0.145	0.016	0.115	0.013

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. Bounds are calculated assuming i) no selection on unobservables on one end and ii) equal selection on observables and unobservables on the other end.

These analyses indicate selection on unobservables would have to go in the opposite direction of selection on observables in order to overturn the results. However, the magnitude of the selection would not have to be very high. This could be plausible, if it is the case that the relevant unobserved variables affect the outcome in the opposite direction of the observed variables. For example, suppose Asian men are positively selected on education but negatively selected on as-

sertiveness, as suggested in Lu et al. (2022). If both high education and high assertiveness have positive effects on leadership, unobserved assertiveness could play a role in driving results. On the other hand, if most of the relevant unobserved variables affect the outcome in the same direction of the observed variables, then this would suggest that selection on unobserved variables is unlikely to be driving leadership gaps. For example, Asian American students are over-represented at elite universities and at the far right tail of standardized test score distributions (J. Lee & Zhou, 2015), which are unobserved in the data. To the extent that these metrics are predictive of leadership representation, this would predict selection on unobserved variables moving in the same direction as selection on observed variables.

In contrast, I find positive breakdown point estimates for results on Black and Hispanic men, with bounds that include zero for all results. The magnitudes of the breakdown points for these groups is small, indicating little selection on unobservables relative to selection on observables is needed to overturn coefficient estimates of leadership gaps for Black and Hispanic men.

6 Conclusion

This study presents new findings on the underrepresentation of US-born Asian American men in leadership occupations. Despite having high levels of education and earnings on average, Asian men are less likely to hold management and executive positions compared to White men with similar qualifications. This underrepresentation is specific to leadership occupations and is not observed in high-paying occupations outside of those roles. An examination of different Asian ethnic subgroups shows that this underrepresentation is present for East Asian and Southeast Asian men, while South Asian men have similar representation in leadership roles as White men.

I investigate various potential causes for the underrepresentation of East and Southeast Asian American men in leadership roles. My findings suggest these gaps in representation are not due to selection into self-employment, ethnic attrition of self-reported Asian identity, immigration generation effects, racial differences in preferences for leadership occupations, spouse characteristics, or geographic sorting. This leaves open the possibility that results are driven by discrimination or stereotyping, or other unobserved differences by race, such as cultural differences in communication styles or differences in social skills or other traits that are deemed relevant for leadership. It is important to keep in mind that these channels are interrelated, and it may not be possible to fully disentangle them as distinct channels.

Overall, this study provides a nuanced analysis documenting the underrepresentation of Asian men in leadership positions in the labor market. Representation is important because those in leadership positions have disproportionate influence over key decisions that affect a firm, and leaders in a firm have the power to advocate for the needs and interests of their communities, both inside and outside a firm. Furthermore, leadership positions are often at the top of career ladders, and barriers to these positions for a group reflect serious structural inequalities in career advancement. There are several important extensions to this research that future work may help inform. This includes research on further understanding underlying factors behind racial gaps in leadership representation, as well as a more nuanced analysis of the representation of Asian American women in leadership occupations.

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A Additional Tables and Figures

Table A1: Employment in Leadership Positions: Heterogeneity by Education Level

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Asian×College	-0.023*** (0.004)	-0.010*** (0.001)	-0.025*** (0.004)	-0.010*** (0.001)
Black×College	-0.000 (0.003)	-0.013*** (0.001)	-0.009*** (0.002)	-0.013*** (0.001)
Hispanic×College	-0.013*** (0.002)	-0.011*** (0.001)	-0.013*** (0.002)	-0.011*** (0.001)
Asian	-0.016*** (0.003)	-0.001* (0.001)	-0.014*** (0.002)	-0.001* (0.001)
Black	-0.051*** (0.001)	-0.004*** (0.000)	-0.045*** (0.001)	-0.004*** (0.000)
Hispanic	-0.024*** (0.001)	-0.002*** (0.000)	-0.020*** (0.001)	-0.002*** (0.000)
<i>N</i>	2,380,529	2,380,529	3,110,069	3,110,069
<i>R</i> ²	0.069	0.025	0.063	0.018
Control mean	0.145	0.016	0.115	0.013

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management occupation (columns 1 and 3) or executive occupation (columns 2 and 4). All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. "College" is an indicator variable that takes a value of one if an individual has a bachelor's degree or higher and zero otherwise.

Table A2: Employment in Leadership Positions: Heterogeneity by Region

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Asian	-0.028*** (0.005)	-0.006*** (0.002)	-0.027*** (0.005)	-0.005*** (0.001)
Asian × West	-0.013** (0.006)	-0.003* (0.002)	-0.008 (0.005)	-0.002 (0.002)
Asian × North	0.024*** (0.008)	0.001 (0.003)	0.019*** (0.007)	0.001 (0.002)
Asian × Midwest	0.008 (0.009)	0.001 (0.003)	0.003 (0.008)	0.000 (0.002)
<i>N</i>	2,380,529	2,380,529	3,110,069	3,110,069
<i>R</i> ²	0.069	0.024	0.063	0.017
Control mean	0.145	0.016	0.115	0.013

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management occupation (columns 1 and 3) or executive occupation (columns 2 and 4). All results are estimated using linear probability models. Omitted racial category: White men. Omitted region: South. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. Estimations include controls for Black and Hispanic identity and interactions with region of residence, although coefficient estimates for these groups are not displayed.

Table A3: Subgroup Employment in Leadership Occupations

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
East Asian	-0.031*** (0.003)	-0.010*** (0.001)	-0.029*** (0.003)	-0.008*** (0.001)
South Asian	0.004 (0.007)	-0.000 (0.003)	0.002 (0.006)	-0.000 (0.002)
Southeast Asian	-0.044*** (0.003)	-0.008*** (0.001)	-0.039*** (0.003)	-0.007*** (0.001)
<i>N</i>	2,380,529	2,380,529	3,110,069	3,110,069
<i>R</i> ²	0.069	0.024	0.063	0.017
Control mean	0.145	0.016	0.115	0.013

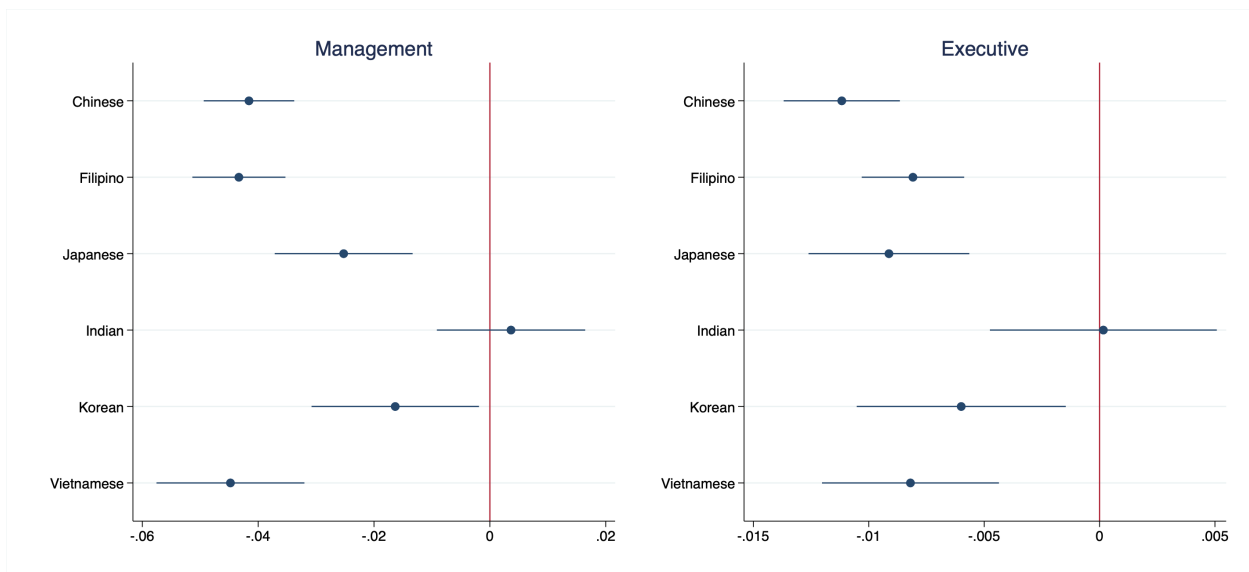
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management occupation (columns 1 and 3) or executive occupation (columns 2 and 4). All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. Black, Hispanic, and Asian men who do not fit into one of the subgroups are also included in the estimation, although coefficients are not displayed for these groups.

Table A4: Subgroup Employment in High-paying, Non-leadership Occupations

Outcome:	Mean White Men Occupational Earnings	Median White Men Occupational Earnings
	(1)	(2)
East Asian	0.006 (0.004)	0.008* (0.004)
South Asian	0.070*** (0.007)	0.086*** (0.008)
Southeast Asian	-0.020***	-0.020***
<i>N</i>	2,789,167	2,789,167

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: mean or median log earnings of White men in individual's occupation. Results are estimated using median regressions. Omitted category: White men. Men who are working in leadership occupations are dropped from the estimation. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. Sample includes all men who are not in leadership occupations. Non-employed individuals in column 1 are given an imputed outcome value of the mean earnings of the occupation that has the lowest mean pay for White men, and non-employed individuals in column 2 are given an imputed outcome value of the median earnings of occupation that has the lowest median pay for White men.

Figure A1: Country-specific Analysis: Employment in Leadership Occupations



Graphs display linear probability model estimates for the magnitude of the difference in the propensity for White men and Asian men from various countries with 95% confidence intervals. All specifications include controls for age, age squared, level of educational attainment, English proficiency, state/metropolitan area of residence, and self-employment status. The samples include both employed and non-employed men, and individuals who are not employed are imputed as not being in management or executive positions. Control mean (management): 0.115. Control mean (executive): 0.013.

Table A5: Employment in Leadership Positions: Multinomial Logit

	Employed men		All men	
	Management (1)	Executive (2)	Management (3)	Executive (4)
Outcome=Leadership occupation				
Asian	-0.024*** (0.002)	-0.005*** (0.001)	-0.019*** (0.001)	-0.004*** (0.000)
Black	-0.055*** (0.001)	-0.012*** (0.000)	-0.053*** (0.001)	-0.010*** (0.000)
Hispanic	-0.021*** (0.001)	-0.007*** (0.000)	-0.016*** (0.001)	-0.005*** (0.000)
Outcome=Self-employed				
Asian	-0.023*** (0.002)	-0.023*** (0.002)	-0.018*** (0.001)	-0.018*** (0.001)
Black	-0.051*** (0.001)	-0.052*** (0.001)	-0.048*** (0.001)	-0.049*** (0.001)
Hispanic	-0.039*** (0.001)	-0.039*** (0.001)	-0.030*** (0.001)	-0.030*** (0.001)
Outcome=Non-leader, non-self-emp.				
Asian	0.047*** (0.002)	0.028*** (0.002)	0.037*** (0.002)	0.021*** (0.001)
Black	0.106*** (0.001)	0.065*** (0.001)	0.102*** (0.001)	0.060*** (0.001)
Hispanic	0.060*** (0.001)	0.046*** (0.001)	0.045*** (0.001)	0.035*** (0.001)
<i>N</i>	2,380,535	2,380,535	3,110,075	3,110,075
Pseudo R ²	0.072	0.070	0.083	0.070
Control mean	0.145	0.016	0.115	0.013
Outcome=Leadership occupation				
East Asian	-0.021*** (0.002)	-0.005*** (0.001)	-0.017*** (0.002)	-0.004*** (0.001)
South Asian	-0.005 (0.004)	0.002 (0.001)	-0.006* (0.003)	0.001 (0.001)
Southeast Asian	-0.039*** (0.003)	-0.009*** (0.002)	-0.031*** (0.003)	-0.007*** (0.001)
Outcome=Self-employed				
East Asian	-0.020*** (0.002)	-0.020*** (0.002)	-0.016*** (0.002)	-0.015*** (0.002)
South Asian	-0.003 (0.004)	-0.003 (0.004)	-0.003 (0.003)	-0.003 (0.003)
Southeast Asian	-0.035*** (0.003)	-0.034*** (0.003)	-0.026*** (0.002)	-0.026*** (0.002)
Outcome=Non-leader, non-self-emp.				
East Asian	0.041*** (0.003)	0.025*** (0.002)	0.033*** (0.002)	0.020*** (0.002)
South Asian	0.007 (0.005)	0.001 (0.004)	0.009** (0.004)	0.002 (0.003)
Southeast Asian	0.074*** (0.004)	0.044*** (0.004)	0.057*** (0.003)	0.033*** (0.003)
<i>N</i>	2,380,535	2,380,535	3,110,075	3,110,075
Pseudo R ²	0.072	0.070	0.083	0.070
Control mean	0.145	0.016	0.115	0.013

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Outcome: whether the individual works in a management occupation (columns 1 and 3) or executive occupation (columns 2 and 4). All results are estimated using multinomial logit models, and average marginal effects are reported. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. For the sample of all men, individuals who are not employed are imputed as not being in management or executive positions. The top panel shows estimation results for aggregated racial and ethnic groups. The bottom panel shows estimation results that disaggregate Asians into ethnic subgroups. Black, Hispanic, and Asian men who do not fit into one of the subgroups are also included in the estimation in the bottom panel, although coefficients are not displayed.

Table A6: Classification of Leadership Feeder Majors

Categorization type	Majors
Manual	Business management and administration, agriculture production and management, engineering and industrial management, hospitality management, natural resources management, computer information management and security, human resources and personnel management, education administration and supervision
Data-driven—management	Petroleum engineering, accounting, construction services, finance, mining and mineral engineering, economics, business economics, agricultural economics, health and medical administration, general business
Data-driven—executive	Construction services, education administration and supervision, operations and logistics and e-commerce, hospitality management, health and medical administration, engineering and industrial management, agricultural economics, mining and mineral engineering, industrial and manufacturing engineering, miscellaneous engineering

Manual categorizations of leadership feeder majors include all detailed degree fields that contain the words “management” or “supervision” in their title. I omit Management information systems (MIS) from this categorization since “management” in this context describes information systems rather than a job role. Results are robust to the inclusion of MIS in this categorization. Data-driven categorizations of leadership feeder majors into management or executive occupations include the top 10 degrees that are most likely to lead to working in a management or executive occupation, respectively. To obtain this measure, I regress an indicator for whether an individual works in a leadership occupation on their degree, conditional on age, age-squared, self-employment status, state+metropolitan area of residence, and English proficiency, to see which degrees contribute the most to working in a leadership occupation.

Table A7: Racial Distributions in Feeder Majors

	White	Asian	Black	Hispanic
Feeder major (manual)	0.09	0.06	0.12	0.09
Feeder major (data-driven—management)	0.17	0.18	0.15	0.15
Feeder major (data-driven—executive)	0.03	0.02	0.02	0.02
<i>N</i>	847,578	24,934	47,225	48,927

Table includes US-born men ages 25-64 years old from 2015-2019 who have a bachelor’s degree or higher, excluding individuals in school or the military.

Table A8: Spouse Characteristics

	White	Asian	Black	Hispanic
<u>Sociodemographic characteristics</u>				
Married	0.59	0.45	0.35	0.45
Spouse Race/Ethnicity				
White	0.93	0.23	0.11	0.28
Asian	0.02	0.67	0.01	0.02
Black	0.00	0.01	0.82	0.00
Hispanic	0.04	0.05	0.04	0.67
Other race	0.01	0.04	0.02	0.03
Spouse Education				
Less than high school	0.04	0.03	0.06	0.11
High school	0.21	0.12	0.25	0.26
Some college	0.32	0.22	0.37	0.34
Bachelor's degree	0.27	0.35	0.19	0.18
Graduate degree	0.16	0.28	0.14	0.10
<i>N</i>	2,487,770	43,346	320,323	258,630
<u>Labor market characteristics</u> (conditional on having spouse)				
Spouse employed	0.72	0.75	0.76	0.69
Spouse hourly earnings (2019\$)	31.10 (107.03)	41.58 (61.27)	26.85 (36.24)	26.72 (68.03)
Spouse self-employed	0.04	0.04	0.02	0.03
<i>N</i>	1,510,520	19,356	101,467	113,292

Table includes spousal information for US-born men ages 25-64 years old from 2015-2019, excluding individuals in school or the military. In the top panel, spouse race/ethnicity and education are only reported for the sample of individuals who are married. In the bottom panel, spouse earnings, self-employment status, and occupation are reported for those with an employed spouse.

B Management Occupations

This appendix provides more detail and analysis on the nature of management occupations.

B.1 Overview

The Standard Occupational Classification (SOC) is a six-digit occupation code that can be broken down into major groups and minor groups. Major groups are classified using the first two digits of a code, while minor groups are classified using the first three digits of a code. Management occupations are classified as all occupations with the major occupation group of “Management Occupations.” Below, I list out the specific six-digit occupations that fall under this major occupation group, grouped by minor occupation group.

- Top Executives
 - Chief Executives and Legislators
 - General Operations Managers
- Advertising, Marketing, Promotions, Public Relations, and Sales Managers
 - Advertising and Promotions Managers
 - Marketing Managers
 - Sales Managers
 - Public Relations and Fundraising Managers
- Operations Specialties Managers
 - Administrative Services Managers
 - Facilities Managers
 - Computer and Information Systems Managers
 - Financial Managers
 - Compensation and Benefits Managers
 - Human Resources Managers
 - Training and Development Managers
 - Industrial Production Managers

- Purchasing Managers
- Transportation, Storage, and Distribution Managers
- Other Management Occupations
 - Farmers, Ranchers, and Other Agricultural Managers
 - Construction Managers
 - Education and Childcare Administrators
 - Architectural and Engineering Managers
 - Food Service Managers
 - Entertainment and Recreation Managers
 - Lodging Managers
 - Medical and Health Services Managers
 - Natural Science Managers
 - Property, Real Estate, and Community Association Managers
 - Social and Community Service Managers
 - Emergency Management Directors
 - Other Managers

In the ACS, occupation information is collected through write-in questions, which are then auto-coded and clerically coded by staff at the Census Bureau.³¹ For example, the exact questions asked for an individual’s main occupation in 2019 were:

- “What was this person’s main occupation? (For example: 4th grade teacher, entry-level plumber)”
- “Describe this person’s most important activities or duties. (For example: instruct and evaluate students and create lesson plans, assemble and install pipe sections and review building plans for work details)”

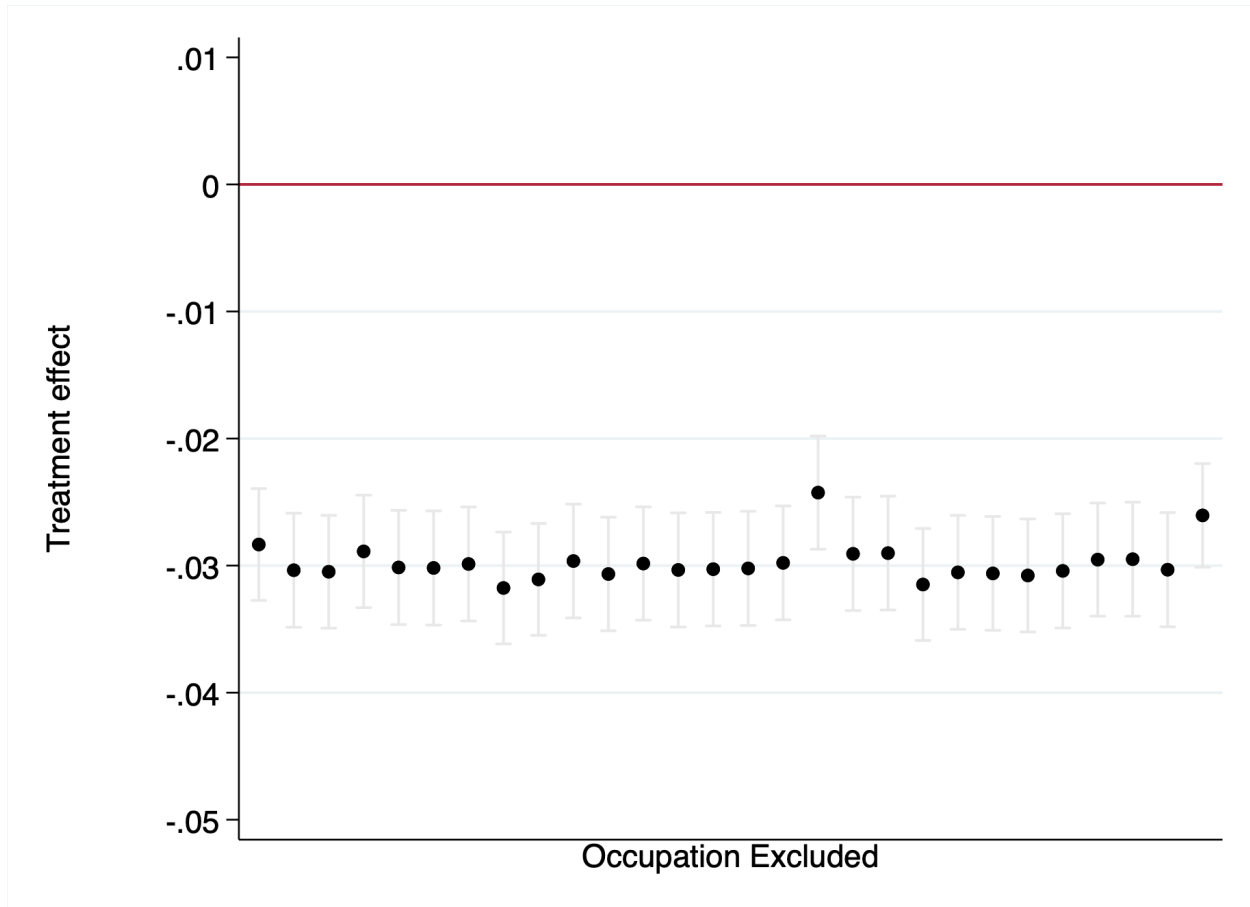
³¹See <https://www.census.gov/topics/employment/industry-occupation/about/occupation.html> for more information.

B.2 Additional Analyses

I perform some additional analyses in this section to investigate whether leadership gaps between Asian and White men appear to be driven by a specific subset of management occupations, or if they represent a more ubiquitous phenomenon across these occupations. First, I perform a leave-one-out analysis to investigate the sensitivity of results to specific management occupations. Figure B1 presents results of this analysis. Each point on the graph represents a coefficient estimate that estimates Equation 1, leaving out one of the 28 management occupations listed in Appendix B.1. Coefficient estimates consistently indicate a negative and statistically significant estimated difference between the propensity for Asian men and White men to work in management occupations for each leave-out estimation. These results suggest that the main results are a generalized phenomenon to the management occupations listed in Section B.1, rather than the result of underrepresentation in a niche management area.

Next, Tables B1 and B2 look at racial gaps in leadership occupations across industry groups. Results indicate leadership gaps between Asian and White men are prevalent across several industries and do not seem to be driven by a few specific industries. Furthermore, coefficient estimates across almost all industries are negative, even if they are not statistically significant. There are also no discernible patterns in the types of industries in which estimated leadership gaps are significant. These findings reinforce that racial gaps in leadership between Asian and White men are a widespread phenomenon across several sectors of the economy.

Figure B1: Leave-one-out Analysis



Graph displays linear probability model estimates of Equation 1, leaving out one of the 28 non-executive management occupations listed in Section B.1. The coefficient estimate on gaps in management occupations for the full sample is -0.030. The figure is estimated off of the sample of employed men, and results are very similar when estimated off of the sample of all men. 95% confidence intervals are reported around point estimates.

Table B1: Heterogeneity by Industry

	Agriculture	Mining	Utilities	Construction	Manufacturing	Wholesale	Retail	Transportation	Information	Finance
<u>Outcome: management occupation</u>										
Asian	-0.039 (0.047)	-0.036 (0.050)	-0.028 (0.025)	-0.052*** (0.013)	-0.050*** (0.007)	-0.010 (0.013)	-0.027*** (0.005)	-0.031*** (0.009)	-0.006 (0.014)	-0.024** (0.011)
N	37,844	26,730	41,489	247,513	395,196	93,224	226,972	155,227	60,167	102,755
R ²	0.328	0.131	0.111	0.154	0.139	0.052	0.038	0.060	0.054	0.034
Control mean	0.350	0.129	0.129	0.172	0.146	0.112	0.064	0.084	0.174	0.240
<u>Outcome: executive occupation</u>										
Asian	-0.013*** (0.003)	-0.024*** (0.004)	-0.012*** (0.004)	-0.004 (0.004)	-0.009*** (0.002)	-0.007 (0.006)	-0.006*** (0.002)	-0.006*** (0.001)	-0.001 (0.005)	-0.012*** (0.004)
N	37,844	26,730	41,489	247,513	395,196	93,224	226,972	155,227	60,167	102,755
R ²	0.042	0.069	0.044	0.036	0.048	0.056	0.034	0.022	0.032	0.024
Control mean	0.008	0.014	0.009	0.015	0.015	0.011	0.007	0.020	0.039	

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. The sample is restricted to employed men in order to have accurate industry of employment information. Agriculture=Agriculture, Forestry, Fishing and Hunting. Mining=Mining, Quarrying, and Oil and Gas Extraction. Wholesale=Wholesale Trade. Retail=Retail Trade. Transportation=Transportation and Warehousing. Finance=Finance and Insurance.

Table B2: Heterogeneity by Industry (continued)

	Real Estate	Professional	Company management	Administrative	Educational	Health	Arts	Accommodation	Other	Public Admin.
Outcome: management occupation										
Asian	-0.009 (0.023)	-0.018*** (0.006)	-0.142*** (0.054)	-0.015 (0.013)	-0.009 (0.009)	-0.033*** (0.005)	-0.014 (0.015)	-0.042*** (0.011)	-0.039*** (0.010)	0.000 (0.008)
N	42,984	190,308	3,314	100,622	138,661	136,538	43,452	92,885	90,547	154,004
R ²	0.065	0.049	0.174	0.094	0.042	0.087	0.058	0.135	0.082	0.071
Control mean	0.274	0.182	0.336	0.120	0.132	0.121	0.158	0.233	0.097	0.099
Outcome: executive occupation										
Asian	-0.013 (0.008)	-0.014*** (0.002)	-0.037* (0.022)	-0.008** (0.004)	-0.000 (0.002)	-0.004*** (0.002)	0.000 (0.005)	-0.005** (0.002)	-0.008** (0.003)	0.002 (0.003)
N	42,984	190,308	3,314	100,622	138,661	136,538	43,452	92,885	90,547	154,004
R ²	0.038	0.022	0.135	0.039	0.015	0.033	0.025	0.027	0.027	0.013
Control mean	0.030	0.029	0.054	0.018	0.009	0.013	0.011	0.007	0.014	0.007

*** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. All results are estimated using linear probability models. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. The sample is restricted to employed men in order to have accurate industry of employment information. Real Estate=Real Estate and Rental and Leasing, Professional=Professional, Scientific, and Technical Services, Company Management=Management of Companies and Enterprises, Administrative=Administrative and Support and Waste Management and Remediation Services, Educational=Educational Services, Health=Health Care and Social Assistance, Arts=Arts, Entertainment, and Recreation, Accommodation=Accommodation and Food Services, Other=Other Services (except Public Administration), Public Admin.=Public Administration

C Labor Market Returns

I examine differences in earnings between Asian men and White men by estimating the following equation:

$$Y_{it} = \alpha + \mathbf{Race}_{it}'\beta + \mathbf{X}_{it}'\delta + \tau_t + [\pi^{OCC} + \phi^{IND}] + \epsilon_{it} \quad (3)$$

where Y_{it} denotes log hourly earnings for individual i in year t . The vector \mathbf{X}_{it}' controls for a set of observable characteristics, including age, educational attainment, English proficiency, area of residence, and self-employment status. I also control for a year fixed effect, τ_t . I include occupation and industry fixed effects, π^{OCC} and ϕ^{IND} , in some estimations as well. The coefficients on the vector of race indicator variables, \mathbf{Race}_{it} , capture the differences in earnings across racial and ethnic groups.

Table C1 displays estimation results of the earnings regression model. Column 1 presents estimation results from Equation 3 without the inclusion of occupation or industry fixed effects. Results indicate Asian men earn 8.6 percent less than White men with the same educational attainment, age, English proficiency, and other characteristics. Gaps are also observed for Black and Hispanic men, with Black men earning 27.6 percent less and Hispanic men earning 11.2 percent less than White men with the same observed characteristics. Column 2 augments the estimation with occupation and industry fixed effects. The coefficient estimate for Asian men does not change much, and results indicate they earn 8.0 percent less than White men who work in the same occupation and industry with the same characteristics. This suggests that the earnings gap between Asian men and White men is largely not driven by Asian men working in lower-paying occupations and industries, which is consistent with findings in Section 3.2. In contrast, earnings gaps for Black and Hispanic men shrink considerably with the inclusion of occupation and industry fixed effects, although they are still sizable and significant. This suggests that a large portion of the earnings gap between White men and Black and Hispanic men comes from differences in occupation and industry of employment across groups.

One concern with these results is that selection effects may bias estimates, since earnings are only observed for those who are employed. Furthermore, as indicated in Table 2, there are sizable differences in employment rates of men across racial and ethnic groups. To address this concern, I follow the approach used in the literature to address selection bias for men by imputing earnings values for those who are not employed (Cahuc et al., 2014). Specifically, I impute arbitrarily

Table C1: Labor Market Returns

	OLS regression		Median regression
	(1)	(2)	(3)
Asian	-0.086*** (0.005)	-0.080*** (0.004)	-0.111*** (0.005)
Black	-0.276*** (0.002)	-0.151*** (0.002)	-0.454*** (0.002)
Hispanic	-0.110*** (0.003)	-0.064*** (0.002)	-0.081*** (0.003)
Occupation FE		X	
Industry FE		X	
<i>N</i>	2,380,529	2,380,529	3,110,069
<i>R</i> ²	0.268	0.382	

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: log hourly earnings. Columns 1 and 2 are estimated using linear regression models, and column 3 is estimated using median regression. Omitted category: White men. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status. OLS sample includes all employed individuals, and median regression includes all individuals, with individuals who are not employed given an imputed hourly earnings of one dollar (log hourly earnings of zero dollars).

low earnings (hourly earnings of one dollar) for those who are not employed and run a median regression, under the assumption that men who are not employed in the labor market would earn below-median wages if they were employed.³² Median regression results are displayed in column 3 of Table C1. Results reinforce the findings in column 1 that Asian men earn significantly less than White men with the same observed characteristics. Specifically, at the median, Asian men earn 11.1 percent less than White men.³³

Earnings regression estimates indicate that while Asian American men are doing well in terms of average educational attainment and earnings, they still experience an earnings penalty relative to White men with the same educational attainment and other observable characteristics. These findings go against the “model minority” stereotype of Asian Americans, which suggests that Asians have fully successfully assimilated, to the point of achieving social and economic parity with Whites. Furthermore, these results are consistent with findings that Asian men are unable to

³²This method is not appropriate for addressing selection effects into the labor market for women, as the assumption that women who are not employed are negatively selected is less plausible (Neal, 2004.)

³³Since I do not observe an industry or occupation for individuals who are not employed, I am unable to run a median regression with occupation and industry fixed effects.

access leadership occupations, even though they work in high-paying occupations overall. Results indicate that most of the earnings gap between Asian and White men occurs within occupation and industry, suggesting that these gaps could represent differences in the progression through the career pipeline. Intuitively, there may be various within-occupation career progressions before an individual is promoted to a managerial or executive position, and differences in progression within race could be captured by earnings gaps within occupation and industry. In contrast, gaps driven by differences in occupation and industry of employment suggest the presence of barriers that prevent individuals from getting their foot in the door in certain fields.

D Analysis of Women

This appendix presents descriptive statistics and analysis results on racial leadership gaps for women. I restrict the main analysis in the paper to men because women have more nuanced patterns of selection into the labor market, which complicates the interpretations of any labor market differences across race. Namely, while men who are not employed are generally negatively selected in the labor market, the same is not true for women. Furthermore, prior research has documented differences in patterns of selection into the labor market for women by race (Neal, 2004), making it hard to ascertain if gaps are due to true racial differences in leadership or racial differences in selection into the labor market. However, it may still be interesting and informative to look at differences in leadership representation for the sample of employed women.

Table D1 presents the sociodemographic characteristics of the sample of women across racial and ethnic groups. Overall, trends for women along these characteristics are very similar to those for men. Asian and Hispanic women are younger than White and Black counterparts. Five percent of Asians and 10 percent of Hispanics report incomplete proficiency in English. Asian women have higher education levels on average than White women and are more likely to have a bachelor's or graduate degree. Black and Hispanic women are less likely to have a bachelor's or graduate degree compared to White women. In terms of geographic residence, Asian American women are disproportionately located in the West compared to other groups and more likely to live in metropolitan areas.

Next, Table D2 presents labor market characteristics for women. Asian women are more likely to report employment in the previous year compared to other groups, with 81 percent of Asian women reporting employment, compared to 72 percent, 72 percent, and 71 percent for White, Black, and Hispanic women, respectively. Employed Asian women earn approximately \$38 an hour in 2019 dollars, compared to White women who earn \$29 an hour on average. This contrasts with means for Black and Hispanic women, who have lower hourly earnings than White women, with both groups earning an average of \$24. The self-employment rate is three percent for Asian women, four percent for White women, one percent for Black women, and two percent Hispanic women. Among the employed women in the sample, 12 percent of Asian women work in a management occupation, compared to 11 percent of White women, seven percent of Black women, and eight percent of Hispanic women. Additionally, 0.6 percent of Asian and White women work in an executive occupation, compared to 0.2 percent of Black women and 0.3 percent of Hispanic

Table D1: Sociodemographic Characteristics of Women

	White	Asian	Black	Hispanic
Age	45.99 (11.63)	38.93 (10.96)	44.32 (11.68)	40.77 (11.26)
Not completely proficient in English	0.00	0.05	0.00	0.10
Education				
Less than high school	0.05	0.04	0.10	0.14
High school	0.24	0.12	0.30	0.29
Some college	0.32	0.21	0.36	0.34
Bachelor's degree	0.25	0.38	0.14	0.16
Graduate degree	0.14	0.26	0.09	0.07
Region				
Northeast	0.18	0.15	0.13	0.15
Midwest	0.27	0.09	0.18	0.09
South	0.36	0.17	0.61	0.36
West	0.19	0.59	0.08	0.40
Resides in metropolitan area	0.73	0.93	0.85	0.90
<i>N</i>	2,514,495	42,693	336,884	264,297

Table includes US-born women ages 25-64 years old from 2015-2019, excluding individuals in school or the military. English proficiency is scored on a 5-category scale: 1: Does not speak English, 2: Yes, but not well, 3: Yes, speaks well, 4: Yes, speaks very well, 5: Yes, speaks only English. I categorize individuals as not completely proficient in English if they report a response of 1, 2, or 3.

women.

Table D3 presents results from Equation 1 estimated on the sample of employed women. Column 1 displays estimates assessing whether an individual works in a management occupation, while Column 2 displays estimates assessing whether an individual works in an executive occupation. Estimates indicate Asian women are significantly less likely to work in leadership positions relative to White women with similar characteristics, although the magnitudes for these gaps are lower than that of men. Asian women are 1.2 percentage points less likely to work in management occupations compared to White women, which is a 11 percent decrease from the baseline probability for employed White women to work in a management position. Additionally, Asian women are 0.2 percentage points less likely to work in management occupations compared to White women, which is a 33 percent decrease from the baseline probability for employed White

Table D2: Labor Market Characteristics of Women

	White	Asian	Black	Hispanic
Employed	0.72	0.81	0.72	0.71
Hourly earnings (2019\$)	29.26 (107.16)	38.47 (66.03)	23.91 (156.65)	23.85 (79.67)
Self-employed	0.04	0.03	0.01	0.02
Management occupation	0.11	0.12	0.07	0.08
Executive occupation	0.006	0.006	0.002	0.003
<i>N</i>	2,487,770	43,346	320,323	258,630

Table includes US-born women ages 25-64 years old from 2015-2019, excluding individuals in school or the military. Column observation counts represent the total number of individuals in each group, white earnings, self-employment, and occupation calculated from sample of employed individuals.

women to work in an executive position.³⁴ For comparison, employed White men are 21 percent less likely to work in management occupations and 44 percent less likely to work in executive occupations compared to White men, relative to the baseline propensities for White men to work in management and executive occupations, respectively.

Table D4 assesses whether employed women in non-leadership occupations differ in the pay level of their occupations by race. The outcome variable in column 1 is the mean log hourly earnings of White males in an individual's occupation, and the outcome variable in column 2 is the median log hourly earnings of White males. I find no evidence that Asian women work in lower paying occupations compared to White counterparts. In fact, both specifications find that for the sample of women working in non-leadership occupations, Asian women work in significantly higher paying occupations compared to White women with similar qualifications. These results indicate that as with men, racial leadership representation gaps for women shown in Table D3 are not capturing a broader phenomenon of Asian women being unable to access higher paying jobs more generally and are instead unique to leadership occupations.

Next, I assess differences in leadership representation for women across subgroups using Equation 1. Figure D1 displays estimation results for employed women. The outcome of the estimation shown in the left graph is an indicator variable taking a value of one if an individual

³⁴As noted earlier in this section, these gaps likely reflect a combination of true racial differences and differences in selection into employment between White and Asian women.

Table D3: Employment in Leadership Positions of Women

	Employed women	
	Management (1)	Executive (2)
Asian	-0.012*** (0.002)	-0.002*** (0.001)
Black	-0.030*** (0.001)	-0.003*** (0.000)
Hispanic	-0.013*** (0.001)	-0.002*** (0.000)
<i>N</i>	2,244,743	2,244,743
<i>R</i> ²	0.037	0.010
Control mean	0.109	0.006

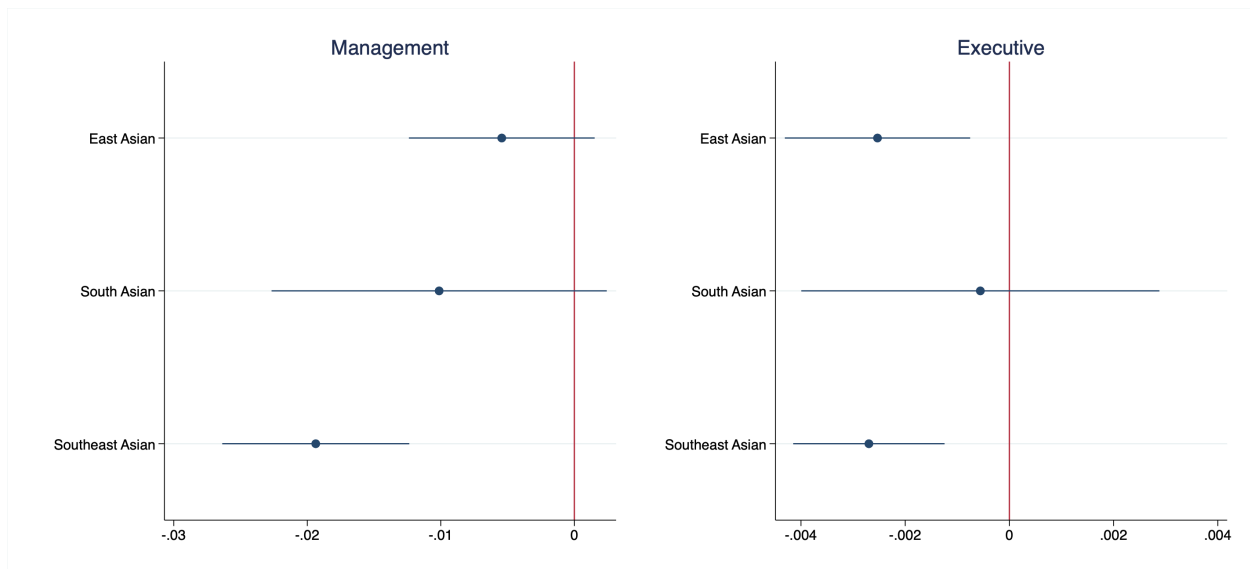
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: whether the individual works in a management or executive position. All results are estimated using linear probability models, and the sample is restricted to employed women. Omitted category: White women. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status.

Table D4: Employment in High-Paying Occupations of Women

Outcome:	Mean White Men Occupational Earnings	Median White Men Occupational Earnings
	(1)	(2)
Asian	0.042*** (0.003)	0.049*** (0.003)
Black	-0.096*** (0.001)	-0.094*** (0.001)
Hispanic	-0.033*** (0.001)	-0.033*** (0.001)
<i>N</i>	2,010,988	2,010,988
<i>R</i> ²	0.348	0.360

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors in parentheses. Outcome: mean or median earnings of White men in individual's occupation. All results estimated using linear regression models. Omitted category: White women. Women who are working in leadership occupations are dropped from the estimation, and the sample is restricted to employed women. All specifications include controls for age, age squared, level of educational attainment, degree field (for individuals with a bachelor's degree), English proficiency, state/metropolitan area of residence, and self-employment status.

Figure D1: Subgroup Employment in Leadership Occupations of Women



Graphs display linear probability model estimates for the magnitude of the difference in the propensity for Asian women from various subgroups to work in a management or executive occupation compared to White women with 95% confidence intervals. All specifications include controls for age, age squared, level of educational attainment, English proficiency, geographic location, and self-employment status. The samples include employed women only. Control mean (management): 0.109. Control mean (executive): 0.006.

works in a management occupation and zero otherwise, and the graph on the right shows an analogous estimation for working in executive occupations. Results indicate East Asian women and Southeast Asian women are less likely to work in executive occupations compared to White women, while South Asian women do not differ in their propensities to work in leadership occupations compared to White women. Results are noisier when looking at management occupations. Coefficient estimates for Southeast Asian women are significant and suggest they are less likely to work in a management occupation. Coefficient estimates for East and South Asian women are also negative, although estimates are not statistically significant.