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Are Law Degrees as Valuable to Minorities?

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Abstract

We estimate the increase in earnings from a law degree relative to a bachelor's degree for graduates of different race/ethnic groups. Law earnings premiums are higher for whites than for minorities (excluding individuals raised outside the U.S.). The median annual law earnings premium is approximately \$41,000 for whites, \$34,000 for Asians, \$33,000 for blacks, and \$28,000 for Hispanics. Law earnings premiums for whites, blacks and Hispanics have trended upward and appear to be gradually converging. Approximately 90 percent of law graduates are white compared to approximately 82 percent of bachelor's degree holders.

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INTRODUCTION

Individuals who complete law school typically receive a large boost to their earnings compared to what they would likely have earned with a terminal bachelor's degree. (Simkovic & McIntyre, 2014) The law earnings premium has exceeded the cost of law school by a wide margin, even toward the bottom of the earnings distribution, and even for graduates who enter the labor force during a recession or with an unusually large cohort of fellow law graduates. (McIntyre & Simkovic, 2017)

But is the value of a law degree predictably different depending on one's race or ethnicity? Estimates by race or ethnicity could help prospective law students and law schools better predict variability in the potential financial benefits of law school, and could help inform outreach, admissions, academic support, and financial aid policies.

This article investigates differences in the law earnings premium by race and ethnicity. Compared to bachelor's degree holders, a higher proportion of law graduates are white. (Simkovic & McIntyre, 2014)

Studies of the returns to education at the college level or below have come to different conclusions about differences in benefits by race.¹ Several studies have

¹ Carneiro et al. conclude that the return to education is higher for individuals from advantaged backgrounds or with higher ability levels. (Carneiro, Heckman, & Vytlačil, 2011) However, Altonji and Dunn and also Ashenfelter and Rouse do not find consistent evidence that the returns to education are higher for individuals

found lower earnings among black and Hispanic² law graduates compared to non-Hispanic whites. The reasons for these differences are not fully understood and are hotly debated.

One hypothesis is that this may be due in part to minorities being more likely to work in the public sector, where earnings are lower. (Dinovitzer, American Bar Foundation, & NALP Foundation for Law Career Research and Education, 2009; Wilder, 2008) Wilkins and Gulati have argued that affirmative action may benefit minorities, while traditional promotion and training practices at elite law firms may work to minority lawyers' disadvantage. (Wilkins & Gulati, 1996; Wilkins, 2004; Carbado & Gulati, 2004)

Heckman has suggested that differences in employment outcomes may be caused by factors other than employment discrimination, such as unobservable differences in educational or training quality or family wealth or social connections. (Heckman, 1998) Sander questioned the benefits of legal education to minorities admitted under affirmative action policies, arguing that relatively

who come from more advantaged families. (Altonji & Dunn, 1996; Ashenfelter & Rouse, 2000). Similarly, Barrow and Rouse do not find evidence that the returns to education significantly vary by race. (Barrow & Rouse, 2005, 2006) Two studies by Dale & Krueger find greater financial benefits from elite undergraduate education among students from disadvantaged backgrounds, including racial minorities. (Stacy B. Dale & Krueger, 2014, pp. 325–26; Dale & Krueger, 2002, pp. 1524–25)

² Some prefer the term “Latino” to “Hispanic.” Because our data is from the U.S. Census Bureau and to avoid confusion, we use the same terminology used by the Census.

low undergraduate grades and standardized test scores could lead to educational “mismatch” that could reduce minorities’ law school class rank, completion rates, bar passage rates, and career advancement. (Sander, 2004, 2006) Sander’s controversial racial mismatch studies generated considerable scholarly debate.³ (Ayres & Brooks, 2005; Ho, 2005; Imbens et al., 2012)

Whatever the cause, among those with law degrees, there are differences in average earnings between different race or ethnic groups. However, the same pattern is present among bachelor’s degree holders. It is unknown whether there are similar differences in earnings *premiums* (i.e., the boost to earnings from the law degree), measured either on a percentage or dollar basis.

Two surveys of graduates of American-Bar-Association-approved law schools from the class of 2000 or 2001, *After the JD II* and *III*, suggest small racial gaps in earnings.⁴ The *After the JD* sample focuses exclusively on those who have passed the bar exam. Yakowitz finds that those who never pass a bar exam typically earn about as much as the 25th percentile of lawyers. (Yakowitz,

³ Less controversially, Sander has also suggested that white law students who have lower incoming credentials than their peers may be at a disadvantage and might have had more career success attending an institution where their credentials would make them more competitive with their classmates. (Sander & Bambauer, 2012, pp. 925–26)

⁴ (Dinovitzer, American Bar Foundation, & NALP Foundation for Law Career Research and Education, 2009, pp. 75–76) (Nelson, Dinovitzer, Plickert, Sterling, & Garth, 2014, pp. 76–77) (Brooks & Ayres, 2013). *After the JD II* surveyed bar-passing law graduates approximately 7 years after graduation, while *After the JD III* surveyed a similar group approximately 12 years after graduation.

2010, pp. 4, 34) Studying an earlier cohort than *After the JD*, the National Longitudinal Bar Passage Study found that long-term bar passage rates were substantially lower for minorities than for whites.⁵ Thus a study of all law degree holders including those who did not pass a bar examination may find larger racial gaps in earnings. Census surveys such as those used in this paper lack bar passage status, and therefore likely include a larger proportion of lower earning individuals compared to *After the JD*.⁶

This study estimates the average financial benefits of law school completion for different groups and over a lifetime.⁷ Analyzing data from the National Education Longitudinal Study (NELS), Simkovic & McIntyre found that the pre-law school earning potential of those who select into law school does not

⁵ Long-term failure rates were 3.3 percent for whites, 8.1 percent for Asians, between 11 and 20 percent for different Hispanic groups, and 22.3 percent for blacks. (Wightman, 1998, p. 32)

⁶ Several studies have used detailed data from *After the JD* datasets and multivariate regressions to assess the channels through which gender gaps in earnings operate. (Azmat & Ferrer, 2016; Dinovitzer, Reichman, & Sterling, 2009) Gender differences in bar passage rates are minimal. (Wightman, 1998, pp. 26, 38) Noonan et al. find similar results using alternative data. (Noonan, Corcoran, & Courant, 2005)

⁷ The “lifetime” in this case will not reflect any specific cohort, as we will be using different cohorts to estimate different portions of the age distribution. Further, different cohorts face certain ages at specific times that may be affected by calendar year events. Thus this is an aggregation of the outcomes of graduates interviewed at all working ages during the 1996-2013 sample period. See, for example, Heckman and Robb for a fuller discussion. (Heckman & Robb, 1985) Our sample will also not enable us to measure the impact on earnings for those who start law school but fail to complete their law degrees. However, our sample will include law degree holders who never passed the bar exam.

appear to be much higher than the earning potential of the average bachelor's degree holder. (Simkovic & McIntyre, 2014) However, the possibility of differences in selection into law school across race and ethnic groups suggests caution in assigning causal interpretations to differences in law premiums by race. Small differences, in particular, could easily be due to either selection or causal effects.

We find evidence that white graduates have a somewhat higher percentage boost in earnings compared to minorities, but when translated into dollar terms the law earnings premium is substantially higher for white graduates than for minorities. At the median and including law graduates who are not practicing law, the annual boost to earnings from a law degree is approximately \$41,000 for whites, \$34,000 for Asians, \$33,000 for blacks, and \$28,000 for Hispanics. The law earnings premium is also higher for whites than for minorities at the 75th percentile, the 25th percentile and the mean, and for samples that are exclusively male or female. In dollar terms, the second highest earnings boost from a law degree goes to Asians. Blacks and Hispanics alternate in third or fourth place depending on the specification. At the 25th percentile, all minorities receive an annual earnings boost of around \$17,000 to \$19,000 with a law degree, compared to around \$23,000 annually for whites. At the 75th percentile, whites receive a large annual boost of \$86,000, while minorities receive an annual boost of between \$54,000 for Hispanics to \$63,000 for Asians.

In percentage terms, the average white-minority gap in the law earnings premium ranges from around 1 to 18 log points, depending on the specification. In percentage terms, the average law earnings premiums are similar across minority groups, at around 48 to 54 log points (around 62 to 70 percent). We find some evidence that law earnings premiums are rising over time and converging for whites, blacks and Hispanics.

I. ESTIMATING EARNINGS PREMIUMS WITH LONGITUDINAL DATA FROM SIPP AND ACS

A. Data and specification

We estimate the earnings premium associated with a law degree for specific subgroups by using earnings, education, and demographic data from two sources: (1) U.S. Census Bureau Survey of Income and Program Participation (SIPP); and (2) U.S. Census Bureau's American Community Survey (ACS). Both are nationally representative household surveys. SIPP follows the same individuals for approximately 4 years, while ACS takes a new cross-section each year.

Each source has strengths and weaknesses. The primary advantage of SIPP is that it enables us to identify law degree holders, whereas ACS requires us to use under-inclusive and over-inclusive proxy groups. The primary advantage of the ACS is its much larger sample sizes, which facilitates more precise estimates for very small groups such as underrepresented minorities who have obtained

advanced degrees.

We restrict our baseline ACS sample to 2009 to 2014 data because the 2009 and later ACS surveys include detailed data on undergraduate major. Major is a relevant control variable for earnings premiums and also varies by race. In addition, this restriction ensures that our entire ACS sample is based on data after the start of the 2007-2009 economic downturn. When we look at time series trends below, we eliminate covariates and report on raw gaps, allowing us to increase our sample to include all ACS years from 2001-2014 and add in the 1990 and 2000 Censuses.⁸

The SIPP is composed of several overlapping “panels” of respondents, each followed for several years. In our main specification, the earliest data are from 1996, with the latest data coming from the end of 2013.⁹ Individuals report monthly earnings three times per year, which we aggregate into average annual earnings over the four years respondents are typically followed.¹⁰ These

⁸ Prior to 1990, the educational attainment variable in the Census did not include a code for professional degree holders.

⁹ Because educational attainment is measured at the start of each panel, the most recent law degree holders in the SIPP sample will have graduated in 2008. (The ACS sample includes more recent graduates). Additional SIPP data is available from 1984 forward, but without important control variables for college major and quality of high school education. Because there are relatively few minority law graduates in the older data, the loss in sample size from limiting ourselves to post-1996 data is relatively small compared to the gains in better control variables.

¹⁰ We fill in missing months based on prior and future month’s earnings (longitudinal income imputation) but we do not use any “hard” cross-sectional

aggregated measures improve precision by averaging out some of the noise in year-to-year earnings.¹¹

Our SIPP sample contains earnings data from 1996 to 2013 for individuals age 25 to 65 with either a bachelor's or law degree.¹² We include in our sample those who report being disabled or unemployed but looking for work. We exclude people who were enrolled in school full-time during the panel. Our final regression sample in SIPP consists of just under one thousand law degree holders and about 28,000 bachelor's degree holders. This limits us to slightly less than 100 minority lawyers. Summary statistics in Table 1, columns (1) and (2) show a breakdown of the SIPP sample by sex, race, college major, high school education variables, time to complete a bachelor's degree, and age. Because of the relatively small number of minority law graduates in SIPP, we focus our analysis on ACS.

While ACS does not specifically identify law graduates, it does have variables for occupation and broad education categories, which enable us to identify three

imputation that attempted to estimate income using the earnings of other people.

¹¹ This noise should not bias our results, but simply makes the estimates less precise. Running the regression on annual data observations we recovered an almost identical racial gap as reported in Table 2.

¹² We required law degree holders to report earning a professional school degree in the field of law and excluded a small number of individuals reporting a master's or doctorate degree. We also dropped all those imputed to be law degree holders.

proxy groups. The first group is the subset of law graduates working as lawyers.¹³ Our sample includes around 40,000 lawyers, including around 4,000 racial or ethnic minorities. We also consider two groups of professional degree holders that are likely to be somewhat over inclusive. The second group is a narrow subset of professional degree holders that excludes those employed in medical fields, accountants, architects, elementary or secondary school teachers, education administrators, clergy or psychologists.¹⁴ Of course, some of these people will be law degree holders, but the vast majority of them will not be, so excluding them will raise the fraction of the sample that has a law degree. This second group includes around 65,000 individuals, and about 6,500 minorities.

The third group—and the broadest we consider—includes all professional degree holders other than those employed in medical fields. The third group includes almost all law graduates (including those not working as lawyers) as well as non-law graduate professional degree holders such as graduates of education

¹³ Since almost all of those identifying themselves as ‘lawyers’ are employed, we include in our bachelor’s degree holders comparison group only those who are employed. In ACS, there is a separate occupational category for the never-employed and the very-long-term unemployed (5 or more years). Those who have worked within the last 5 years but are currently unemployed list their most recent occupation. Excluding unemployed bachelor’s degree holders helps correct for the undercounting of unemployment in the ‘lawyer’ proxy group (and only slightly overcorrects because of the small proportion of unemployed ‘lawyers’).

¹⁴ Our narrow and broad professional degree holder categories will include individuals who may be unemployed if they have some income during the year. Individuals who are unemployed will typically report some income because unemployment among the highly-educated typically lasts less than one year.

and divinity programs. The third group includes around 75,000 individuals, including around 7,500 minorities.

Our middle group, “narrow professional degree” holders, includes 40,000 individuals working as lawyers. SIPP and *After the JD* suggest that those working as lawyers constitute about two thirds to three fourths of law degree holders. Therefore, we expect the narrow professional degree holder sample to include an extra 10,000 to 15,000 people with a law degree who are not working as lawyers. Thus of the 65,000 observations in the narrow professional sample, we expect about 75% to 85% are law degree holders. If a lower proportion of law degree holders obtain work as lawyers than previously estimated, then an even larger proportion of the narrow professional sample will consist of law degree holders. Thus we think the narrow professional sample makes a good starting point for any discussion of the law premium, with the first sample (lawyers) and the third sample (broad professional degree holders) roughly forming upper and lower bounds.

Summary statistics in Table 1, Columns (3)-(6) show a breakdown by sex, race, college major, and age for ACS across the three proxy groups for law graduates and for bachelor’s degree holders. The descriptive statistics in ACS are generally similar to those in SIPP. The primary differences seem to be in age and college major. ACS lawyers has slightly heavier representation of older workers

(age 60-65) and slightly lighter representation of middle-aged workers (age 40-49) than SIPP. This may be because law graduate cohort sizes grew more rapidly in the 1960s and 1970s than in subsequent decades and because our ACS sample is newer. It may also be because law graduates tend to remain in the workforce longer in recent years than they have in the past. ACS also has somewhat heavier representation of social sciences majors and somewhat lighter representation of humanities majors compared to SIPP.¹⁵ Among all law proxy groups, whites are slightly over represented compared to bachelor's degree holders, as are men and humanities and social sciences majors.

We define “whites” as white non-Hispanics, “blacks” as black non-Hispanics, and so on. Those of Hispanic ethnicity are classified as Hispanic regardless of race. In both SIPP and ACS, across all racial and ethnic groups (black, white, Asian and Hispanic), we exclude from the sample those who did not come to the U.S. by the age of 20. Though there are interesting questions about immigrants, we wish to avoid conflating minority status with immigration status and the possibly sizable effect of receiving a law degree in another country. College majors in SIPP are aggregated into five categories: humanities; social sciences; business; science, technology, engineering and math (STEM); and other.¹⁶ For

¹⁵ This may similarly be because of the general trend towards social science as a pre-law degree and the fact that the ACS sample is newer.

¹⁶ The college major categories are based on those in the 1997 version of the International Standard Classification of Education (ISCED) (UNESCO, 1997),

the ACS regressions, we disaggregate the major categories and include dummy variables for just under 50 majors.¹⁷

We use the following empirical specification for both SIPP and ACS samples:

$$y_i = \alpha \cdot Z_i \cdot Law_i + X_i\beta + \gamma Z_i + \varepsilon_i$$

Where y_i is log annual earnings for worker i averaged over their years in the sample. For the SIPP sample, Law_i is a dummy variable for receipt of a law degree. For the ACS sample, it reflects membership in a law proxy group. Our sample includes only those with either a bachelor's degree or a law degree; thus our comparison is the difference between a law degree and a terminal bachelor's degree. Our main coefficients of interest, α , are the law school premia as a function of race captured by the variable Z_i . Race is considered both as an interaction term with law gradation and as an un-interacted control variable. X_i

modified to maximize compatibility across surveys. The limiting survey is usually SIPP, which only offers 18 major codes. SIPP sometimes groups together majors that would appear in separate categories under ISCED. For example, "Art" and Architecture" appear as a single category in SIPP, whereas under ISCED, "Art" is a humanities field and "Architecture" is a STEM field. To maintain compatibility across data sets, we therefore always classify "architecture" as a humanities field. For a detailed discussion of differences in the law earnings premium by college major, see (Simkovic & McIntyre, 2016).

¹⁷ The ACS natively provides 38 broad and 150 detailed major categories. Many of the detailed categories contain too few individuals to be precisely estimated on minority subsamples. By contrast all social science majors are clumped together in the broad categories. Because of the importance of social sciences as pre-law majors, we use the 37 other broad major categories but break out social science into its 9 detailed majors.

captures un-interacted controls for sex and race; a quadratic in age; college major; and dummy variables for state of birth and for each calendar year.¹⁸

Outcome variables—variables that could themselves be affected by law school attendance—should not be used as controls.¹⁹ Thus, employment status is not a control variable because additional education might increase the likelihood of finding employment or full-time employment or employment in a particular industry or sector. Similarly, *current* geography is not a good control variable because additional education may increase one's employment opportunities in locations where incomes are typically higher, and therefore one's inclination to move to higher-income areas after law school. Instead, controls are applied for birth state—a geography variable which—like race, sex, and date of birth—precedes law school and therefore cannot readily be affected by law school attendance.²⁰

In the appendix, using ACS we also consider a number of alternative specifications that may help explain the channels through which racial or ethnic differences in law premiums operate. (As noted below, one channel may be that white graduates of law school are more likely than minorities to practice law).

¹⁸ We lack information on state of birth for the first SIPP panel (1996), and so we include a dummy variable for those missing this information. Our results are robust to excluding the control for state of birth entirely.

¹⁹ (Angrist & Pischke, 2009, pp. 49–53). Angrist and Pischke refer to these as “bad controls.”

²⁰ Geography of college or law school completed is not available.

These alternative specifications are likely worse measures than our main specification of the magnitude of racial or ethnic gaps in earnings premiums from law school attendance. This is because the alternative specifications restrict the extent to which law school attendance can variably increase graduates' employment, lead to work in different industries or sectors, or create opportunities for the educated to move to more economically vibrant geographies. Nevertheless, these regressions may perhaps shed some light on possible mechanisms of action. Overall, the results suggest that differences in public and private sector employment act as an important mediator of racial differences in law earnings premiums. By contrast, work hours and geography appear to be less important to racial differences in law earnings premiums. For more details, see the appendix and table A1.

Because of the small number of minorities in SIPP, blacks, Hispanics and Asians are combined into a single "minority" category; by contrast, ACS maintains separate categories for each minority racial/ethnic group. Our SIPP specification includes additional controls not available in ACS: years to college completion interacted with college major; indicators for completing 2 or more years of advanced high school math, science, foreign language, or English; public or private high school; and college preparatory high school. All estimates are weighted using the relevant survey's sample weights (SIPP or ACS). In addition,

separately estimate the law premium within each subsample.

B. Ordinary Least Squares Results

1. Analysis in SIPP

Table 2 reports our base specification using SIPP data. In column (1), we report the log earnings gap between the general population of bachelor's degree holders and law degree recipients by race. Columns (2) and (3) give estimates based on subsamples that are exclusively female or male. Column (1), row 1 reports that for both sexes combined, the log premium for whites is 0.67 (or 95%). The point estimate in the second row of Column (1) indicates that the law premium may be lower for minorities at 0.52 (68%).

Table 2, Columns (2) and (3) find that within each sex, earnings premiums remain higher for whites than for minorities. Also, within each race, the law earnings premium is higher in percentage terms for women than for men.²¹ Unfortunately, the large standard errors inhibit our ability to make finer tuned statements about differences across groups. For example, as we report at the bottom of the table, we cannot reject equality of the law premium by race across the entire sample ($p=0.18$). Nor can we reject that all women have the same

²¹ Higher percentage law premiums for women than for men is consistent with previous studies of sex differences in law earnings premiums. (Simkovic & McIntyre, 2014, pp. 256–57)

premium ($p=0.56$) or that men do ($p=0.20$). Our confidence interval for the law premium for minorities extends from approximately 30 log points up to 70 log points.²² Our analysis would benefit from greater precision. Thus we turn to our larger ACS sample.²³

2. Analysis in ACS

To better understand differences in the law premium by race and ethnicity, we consider data from the Census Bureau's American Community Survey (ACS), where our sample has approximately a million observations with income data from 2008 to 2013.²⁴ Given the relatively small proportion of minority lawyers, this sample represents a tremendous advantage over the SIPP. Standard errors will be vastly smaller giving us much greater precision in our estimates. Using ACS data, Table 3 reports an analysis similar to Table 2 column (1). Each column reports regressions using a different proxy group for law graduates, as described above in Part A. The results are substantially similar to those in Table

²² The point estimate for the minority law premium in Table 2, Column 1 is 0.52 with a (rounded) standard error of 0.10. Thus the 95% confidence interval on this estimate is $0.52 \pm 1.96 \cdot 0.10$ (0.32, 0.72).

²³ Controls in the regression affect earnings in predictable ways. For example, STEM and business majors are higher earning (by over 20 log points) than humanities or social science majors, and students with a strong math background in high school appear to be higher earners than those who lack that preparation.

²⁴ The surveys are from 2009 to 2014, but income is reported for the prior year in each survey.

2, Column (1). Across law proxies, law earnings premiums are higher for whites than for minority groups.

The lower premiums for minorities we found in the SIPP are more evident in ACS when we use narrow professionals as a proxy group for law graduates rather than lawyers as our proxy group. Minorities may have lower earnings if a smaller fraction of minority law graduates work as lawyers. In the SIPP data, the percentage of law graduates who currently work as lawyers or judges is 10 percent lower for minorities than for whites, a statistically significant gap ($p=0.01$). Additionally, racial differences in earnings premiums could be larger among those who do not work as lawyers.

In Table 3 Column (1), those who work as lawyers, the law log earnings premiums are highest for whites at 0.74 (110%). Premiums for blacks, Hispanics, Asians, and other racial minorities are slightly lower at around 0.67 to 0.69 (94% to 98%). In Column (2), using our narrow professional degree holder category as a proxy for law graduates, the racial differences in premiums are larger: the law earnings premium is noticeably larger for whites (0.58 or 79%) than some minorities. Among minorities, law earnings premiums are the same for Asians and Hispanics (0.48-0.49 or about 61-63%), and slightly higher for blacks (0.54 or 72%).

As expected, across racial groups, law premiums are lower when estimated using narrow professional degree holders (Table 3, Column (2)) rather than

lawyers (Table 3, Column (1)), because law graduates practicing law on average earn more than those who are not practicing law, and because the narrow professional degree holder category includes some individuals with advanced degrees other than a law degree which predict lower earnings than a law degree. Whether we use lawyers or narrow professional degree holders as our law degree proxy, the law premium for minorities is slightly smaller than the law premium for whites. The largest racial gap in the law earnings premium among the lawyers is 7 log points; the largest racial gap in the law earnings premium among the narrow professional degree holders, is 10 points. Although our lawyer proxy is under-inclusive and our professional degree holder proxies are over-inclusive in identifying law degree holders, the fact that we get a consistent answer from both increases our confidence in the quality of these proxies.

In Table 3, Column (3)—our broad professional degree holders category, which includes a wider variety of occupations than Column (2)—the results are substantially similar to those in Column (2), although once again earnings premiums are incrementally lower across racial groups. This is again likely because the broad professional degree holder category includes a somewhat lower proportion of lawyers and true law degree holders than the narrow professional degree holders category. Notice that in this sample, the gaps are even a little smaller across race and ethnic groups.

Estimates in all columns of Table 3 are very precise and support our findings

in SIPP. At the bottom of the table we also report on a test of the law premium being the same across all groups. With the large ACS sample we easily reject this restriction ($p < 0.001$), something we could not do in the SIPP sample. For the remainder of the analysis, we focus on results in ACS because of the importance of larger sample size when estimating premiums for the very small number of minority law graduates.

Although not reported here, in additional work we tested whether the results were different when we used log earnings per hour of work rather than just total earnings, but the racial gap was essentially unchanged.²⁵

For many purposes, the boost to earnings in *dollars* may be more important than the boost as a *percentage* of earnings.²⁶ We are also interested in the total salary one could expect to make as a lawyer, and thus we want to add together the bachelor and JD portions. Lastly, our prior regressions look at how the law degree proportionally raises earnings. Since many minorities start from a lower base, proportional earnings increases translate to fewer dollars for minorities. In

²⁵ Note, however, that hours worked are not necessarily the same as hours billed or client revenue generated. These variables in *After the JD II* have been found to help explain the gender gaps in earnings and promotion among those who work at law firms. (Azmat & Ferrer, 2016) For a discussion of why we do not use these variables (which are only available in AJD and not Census data), see footnotes 5 through 7 and accompanying text.

²⁶ There are exceptions. The relatively small minority of student loan borrowers who enroll in and complete income based repayment plans with debt forgiveness will pay for the debt-financed costs of their educations as a percentage of their future earnings. (Brooks, 2015; Schrag & Pruett, 2010; Simkovic, 2015)

Figures 1 through 4, we estimate law premiums by dividing the sample into subsamples each containing one of the four race groups. This is a more flexible specification as it allows every coefficient to vary based on race. Note that we are still using the same base specification as in Table 3 and we still estimate on log earnings. But now we will translate these into dollar amounts based on typical earning cases.

Figure 1 shows average base earnings and earnings premiums in thousands of real 2014 dollars using our Lawyers proxy category in ACS. The darker, left half of each bar shows baseline mean earnings with a terminal bachelor's degree for individuals of each race and sex. The lighter bar on the right shows the mean annual law earnings premium (by applying the log premium to the base earnings). Adding the two bars together gives total earnings for individuals with law degrees (as measured by our proxy). While we do not explicitly give standard errors here, the large samples make these fairly small. One can use the standard errors in Table 3 as a guide, which suggest a confidence interval of 5% in either direction for the minorities and 1% for the white sample.

For white male lawyers, average annual earnings are \$180,000 and the law earnings premium is \$88,000. For all races, being a lawyer roughly doubles predicted income. This is in line with what we saw in Table 3, Column 1. For Asian men, both total earnings (\$142,000) and the earnings premium (\$64,000) are substantially lower than for white men. Similarly, earnings and premiums are

lower for black men (\$126,000 earnings; \$61,000 law earnings premium), or Hispanic men (\$153,000 earnings; \$76,000 law earnings premium) than for white men.

For white women, average total earnings are \$128,000 and the law earnings premium is \$73,000. This is noticeably higher than the law earnings premium for women who are Asian (\$65,000), black (\$54,000), or Hispanic (\$47,000). Within each sex, whites get a larger financial benefit from being a lawyer than minorities. Within each race, men benefit financially more than women. Of course, there could be unobserved factors that account for some of these gaps.²⁷ At both the bachelor's and law degree level, people in different demographic groups may have varying interests in types of work, some of which will pay better than others. Thus one cannot say, *a priori*, how much of what we observe is due to various forms of discrimination and how much of it has to do with unobserved preferences or characteristics of the workers.

Whereas Figure 1 focused on those working as lawyers, Figure 2 presents the same analysis using the “narrow professional degree” holder law proxy group instead. The overall pattern is the same, but for all groups law earnings premiums are lower because law graduates who practice law typically earn more than those

²⁷ For example, Azmat and Ferrer found that within law firms, a substantial proportion of the gender gap in earnings and promotion was explained by differences in performance measures such as hours billed (not just hours worked) and in client revenue generated. (Azmat & Ferrer, 2016)

who do not, and because this sample is 15% to 25% composed of individuals with professional degrees in fields other than law, who likely earn less than lawyers on average. We take some comfort, though, in the similarity of the earnings pattern that emerges.

C. Quantile regression results

Rather than estimate only average earnings premiums, it is possible to estimate earnings premiums at different points in the distribution of earnings ability levels using quantile regression. Thus we could see if the relationship between race and predicted law earnings premiums is different for those at the top or bottom of the earnings distribution. Quantile regressions enable the relationship between each control variable and the earnings premium to vary at different points in the distribution. Quantile regressions at or below the median are also less sensitive than OLS to top-coding procedures, though the upper percentiles can be extremely sensitive to top-coding.

Figures 3 and 4 report the bachelor's earnings and law premium in 2014 dollars by race and percentile for the lawyer and "narrow professional degree" samples. In each case, we use the underlying distribution of employed bachelor's degree holders to get the 25th percentile, median, and 75th percentile of total earnings for bachelor's. We then use a quantile regression with the same controls

as previously to calculate the lawyer premium, converted into dollars.²⁸ Though not reported in the figure, standard errors for our estimates are all quite small, with nothing over 3% for the reported values.

Figure 3 reports quantile bachelor's and law earnings results for the working lawyers sample, while Figure 4 reports for the "narrow professional degree" proxy group. Figure 3 shows that across the earnings distribution—for those at the 75th percentile, 50th percentile, and 25th percentile of earnings ability—whites appear to benefit financially more from law degrees than all minorities. In general, the Hispanic and black samples get slightly less benefit than the Asian sample, though the gap is not large. This is consistent with what we found above in Figure 2 narrow professional degrees, for women. Although, in Figure 2 Hispanic men appeared to benefit more from law degrees than Asian or black men, in general, the results in Figures 2, 3 and 4 follow the same pattern throughout: being a lawyer roughly doubles income over a bachelor's degree, with the benefits in dollars lower for minorities than whites.

At the median, the annual earnings for white lawyers is \$109,000 and the law earnings premium is \$53,000. For Asian lawyers, earnings are \$109,000 and the

²⁸ For the white sample, we actually only used a fifth of the bachelor's degree data to form our lawyer premium coefficient, though we use all the proxy law group. The estimates for bachelor's were quite precise and quantile regression does not readily deal well with very large samples of over a million observations. We adjusted our sampling weights accordingly. For the smaller minority samples we of course used all the data available.

law premium is \$49,000. For black lawyers, annual earnings are \$95,000 and the law premium is \$46,000. For Hispanics lawyers, annual earnings are \$94,000 and the law premium is \$42,000. Thus at the median, Asians and whites receive comparable boosts, with black lawyers close behind and Hispanics somewhat lagging.

At the 75th percentile, the largest standout are white lawyers who go from a base of \$89,000 up to a large \$200,000 in total earnings. All of the minority groups see their incomes roughly double, which translates into smaller increases for black and Hispanic lawyers (\$71,000) than for Asians (\$87,000).

At the 25th percentile, earnings and premiums are all much lower and the premium is fairly similar across groups at \$34,000 for whites, just below \$30,000 for Asians and blacks, and slightly less again for Hispanics. Total earnings are around \$70,000 for white and Asian lawyers and about \$60,000 for the black and Hispanic lawyers. Here the law degree does not quite double earnings, especially for minorities.

Thus although whites typically receive a larger financial benefit from law degrees, there is overlap in the distribution, with minorities at the 75th percentile benefiting more than whites at the 50th percentile, and minorities at the 50th percentile benefiting more than whites at the 25th percentile.

Figure 4 is substantially the same as Figure 3, except that Figure 4 uses the

“narrow professional degree” holders proxy instead of lawyers. The pattern that emerges is substantially similar to the pattern in Figure 3. Earnings across races exhibit less variation than earnings within races, and white professionals do the best followed by Asians. Note that, since the non-lawyers in “narrow professional” will cluster towards the bottom end of the distribution, the largest differences between Figures 3 and 4 will be at the bottom end, with the top end looking quite similar. The differences between whites and minorities in earnings premiums appear to be smaller among those who practice law compared to the larger group of professional degree graduates.

D. Changes over time

Law schools and legal employers have made strong efforts to increase diversity within the legal profession. In addition, the quality of education prior to law school available to minorities has generally improved over time. This raises questions about whether racial gaps in the benefits of a law degree have diminished over time.

In Figures 5 and 6, we consider raw law earnings premiums (without regression controls) in percentage terms from 1989 to 2013 for each racial

group.²⁹ We forgo regression controls so we can go back in time as far as possible while still providing easily interpretable numbers. Dividing the sample by year is no problem for the large group of white lawyers, but can hurt precision among the minority samples. Thus we average observations over two year bins to smooth out sampling variation.

We graph each minority group's earnings premium separately and as a point of comparison, pair it with the premium for the white subsample. We find some evidence of rising law earnings premiums over the long term for whites, blacks, and Hispanics. The early \$60,000 premium for white lawyers over bachelors' degree holders rises over time and by 2013 is around \$65,000. The premium for Asian lawyers has largely stagnated but we do see some evidence that black and Hispanic lawyers are catching up to the white lawyers. For example, black lawyers in 1989 typically had a premium between \$35,000 and \$40,000. By 2013 this premium increased almost to \$60,000. We see similar growth for Hispanics.

We see the same pattern when we look at our "narrow professional degree" proxy group in Figure 6. As discussed, the numbers here are all smaller, but once again the gap in the earnings premiums between the black and Hispanic subsamples and the white subsample narrows over time.

Given convergence in earnings over time, younger minorities may be facing a

²⁹ Recall that the income data in the 1990 Census is for the prior year, thus we have Census data on 1989 and 1999 income. The numbers reported are differences between median earnings of the bachelors and law groups.

very different environment than that faced by a minority law degree holder starting out twenty or thirty years ago. In unreported results, we looked at earnings premiums rerunning the analysis from Table 2 separately by age group. We saw little difference in results when we looked at subsamples of younger lawyers (age 30 to 40) vs older lawyers (age 45 to 55) in the ACS data.

These figures may help explain why the racial gap in our Table 2 SIPP data appears to be larger than in the Table 3 ACS data—because SIPP includes data from the 1990s and 2000s, when the racial gap appears to have been larger than in more recent years. Another explanation could be imprecise SIPP estimates.

Figure 7 looks at the raw earnings premium in the SIPP for white and minority lawyers divided into two eras – pre and post 2000. Although the lack of precision makes this largely exploratory rather than definitive, what we find supports our ACS finding of convergence in law earnings premiums. In SIPP, minority premiums have risen to be much closer to those for white lawyers. Statistically, we cannot reject that the white premium has been stable over the whole period ($p=0.30$) but we can reject that the minority premium has been stable ($p=0.03$). Nor can we reject that the premium is the same for whites and minorities after 2000 ($p=0.45$). (Indeed, in this sample the minority premium since 2000 has an even larger point estimate than that of white lawyers). While we estimate substantial racial gaps in the benefit to law school two to three decades ago, both the ACS and SIPP data suggest that these gaps are much smaller now.

As previously noted, Figures 5 and 6 are raw differences without controls for variables such as macroeconomic conditions or cohort effects.³⁰ Thus we take the results from Figures 5 through 7 as more suggestive than definitive.

II. OMITTED VARIABLES BIAS

Interpreting the above premiums requires us to think about how students choose to go to law school and how law schools choose to admit students of different races. Our concern is that these choices can lead to unobserved ability or earnings potential differences that bias our estimated premiums away from the causal effects.

It is likely that individuals who choose to attend law school tend to have higher innate earnings potential than those who choose to enter the workforce with a terminal bachelor's degree, and law graduates would have earned somewhat more than average bachelor's degree holders even if the law graduates had not attended law school. To the extent that this selection effect is not fully captured by controls, this bias would make all the estimated law earnings premiums, across races, too high. If true, the overall premium levels would be wrong, but the differences we find across races could still be correct. Selection

³⁰ For a discussion of the impact of cohort and macroeconomic effects on law earnings premiums, see McIntyre & Simkovic (2017).

effects could be different for minorities because of racial discrimination or affirmative action, possibly biasing our estimates of racial gaps in earnings premiums up or down.

Past work has found little evidence for upward bias in earnings premiums estimated using OLS. IV estimates of education in general, which should be robust to omitted variables bias, typically estimate *higher* effects of education on earnings than those estimated by OLS regression. Twins studies, which are likely to be downward biased by stronger measurement error effects, typically estimate only slightly lower coefficients than OLS (Card, 1999).

More specifically, Simkovic and McIntyre (2014) investigated omitted variables bias in legal education using data from the National Education Longitudinal Study (NELS) of 1988. NELS is a panel data survey that tracks a large pool of students from middle school until their late 20s. Students, their parents, and their teachers were interviewed repeatedly from 1988 to 2000. This allows researchers to track which factors lead an individual to law school and how those factors predict earnings for those who have only a bachelor's degree. Using an extensive set of variables on the students' ability, parental background, and motivation, they found that those bound for law school were slightly more capable than their non-law counterparts, but that the counterfactual higher earnings only explained about a 10% wage gap. And some of this gap was due to demographics (such as race or gender) accounted for in our regressions here.

Additionally, any upward bias from unobserved ability will be alleviated by downward bias from measurement error.

A second concern is that benefits to law school for whites might be in part due to the benefits conferred by attending a more selective law school, possibly because more selective institutions have more resources and spend more on instruction for each student, (Dale & Krueger, 2014; Dale & Krueger, 2002) or because more selective law schools have a stronger brand name or a more successful alumni network. (Oyer & Schaefer, 2009; R. Sander & Bambauer, 2012) Law schools admit students and allocate merit aid based primarily on standardized test scores and undergraduate grade point averages, which tend to be higher for whites than for blacks or Hispanics.³¹

We considered this possibility using recent data from the ABA section on legal education about the race of J.D. recipients at each ABA approved law school.³² A higher proportion of blacks and Hispanics than whites graduated

³¹ And indeed, a lower proportion of black and Hispanic law students receive merit aid than white and Asian law students. (Indiana University Center for Postsecondary Research, 2016, p. 9)

³² Using data from 2011 to 2015, we divided law schools into 4 tiers by median LSAT score. Each of the first 3 tiers includes 50 law schools. The 4th tier includes approximately 56 law schools. Among law school graduates, blacks and Hispanics are over-represented in 4th tier schools and under-represented at 1st, 2nd and 3rd tier schools. Asians are over-represented in 1st and 2nd tier schools and underrepresented in 3rd and 4th tier schools.

The distribution of LSAT scores for blacks and Hispanic law students is substantially lower than the distribution of LSAT scores for white and Asian law students. (Indiana University Center for Postsecondary Research, 2016, p. 9)

from the bottom quartile of law schools. However, a higher proportion of Asians than whites graduated from the top half of law schools. Since all three minority groups receive less benefit from their law degrees than whites, the reasons for racial differences in law earnings premiums are not well understood.³³ Some other possible reasons which are difficult to test empirically include differences in complementary social and family connections, different preferences for types of legal work or types of employers, racial discrimination by employers or clients, or differences in earnings ability and productivity. As noted above, except for the black-white lawyer earnings premium in the public sector, controls for full-time employment status, geography, and for public sector, private sector, or legal services industry employment do not alter racial gaps in earnings much.

CONCLUSION

After controlling for observable differences, we find that a law degree is associated with approximately an 80 percent increase in earnings for whites and a 60 to 70 percent increase for minorities such as blacks, Asians and Hispanics. The results are similar when looking only at men or only at women. In addition, whites' higher percentage premiums are multiplied by higher base earnings than

³³ One limitation is that these data are from recent years, whereas some of the minority law graduates in our sample will have graduated earlier, when law school enrollment and graduation patterns for minorities and whites could have been different.

blacks' or Hispanics', such that in dollar terms the gaps are even more noticeable.

It is likely that at the median and even 25th percentile, law students of all races typically derive greater financial benefits from their law degrees compared to a terminal bachelor's than the costs of those law degrees.³⁴ However, minority students' predictably lower earnings premiums indicate that they are at greater risk than other students of losing out financially from law school.³⁵

There are important limitations to our study. While differences in total earnings by race are well documented, and we now have evidence in differences by race in law earnings premiums (the financial benefits of legal education), the reasons for these differences are not well understood and likely include a combination of factors. Another limitation is that we are measuring population-level differences in earnings. Individual outcomes vary, and we account only for a limited proportion of the total variance in earnings.

Nevertheless, our results suggest two things. First, attending law school is

³⁴ Simkovic & McIntyre found that a \$20,000 annual earnings premium translated into a present value of lifetime earnings premiums as of the start of law school of slightly less than \$400,000, after taking into account foregone earnings but before taxes or tuition. (Simkovic & McIntyre, 2014, pp. 260, 279) By contrast, the most expensive law degrees in the United States at full tuition cost \$200,000, the typical law degree costs around \$100,000 after scholarships and grants, and the least expensive law degrees might cost around \$50,000. For a discussion of the taxation of earnings premiums and public subsidization of higher education, see (Simkovic, 2015, 2016).

³⁵ Black and Hispanic law students are also less likely than white or Asian law students to receive merit scholarships. See *supra* note 31 and accompanying text.

generally a better financial decision than terminating education with a bachelor's degree, but the boost to earnings is higher for whites than for minorities. Second, differences in the financial benefits of a law degree by race appear to have diminished in recent years, particularly as between whites on the one hand and blacks and Hispanics on the other.

APPENDIX

Using ACS we also consider a number of alternative specifications that may help explain the channels through which racial or ethnic differences in law premiums operate. Overall, these results suggest that differences in public and private sector employment act as an important mediator of racial differences in law earnings premiums. Minorities are less likely than whites to work in the private sector or legal services where earnings premiums are typically higher than in the public sector. As noted above, whites are about 10 percent more likely to work as lawyers. Among those working as lawyers, almost 70 percent of whites work in legal services, while only around 50 percent of black lawyers do. Differences could either reflect individual preferences for different kinds of work, or differences in opportunities because of discrimination or productivity differences. Racial gaps in earnings premiums are higher in the private legal services than in the public sector. By contrast, work hours and geography appear to be less important to racial differences in law earnings premiums.

Table A1 gives the results of alternative specifications for our lawyer subsample of the ACS which may help explain the channels through which racial or ethnic differences in law premiums operate. The relevant comparison in our baseline specification is Table 3 Column 1.

Table A1 Row 1 looks at work hours. In row 1 we restrict the sample to those working full time, which we define as those reporting that they usually work at least 35 hours per week. As expected, compared to our main specification in Table 3 column 1, law earnings premiums are lower for all groups. Differences in law earnings premiums by race are similar to those in our baseline specification, although the gap for blacks is only marginally statistically significant.

Row 1 suggests that different effects on work hours are not an important channel through which racial gaps in law earnings premiums operate.

The next three rows consider employment in different sectors and industries. We first look at only those employed in public sector work, then private sector, then we limit our lawyers to those working in private sector “legal services” (law firms or solo legal practices).³⁶ In row 2, we find that among lawyers working in the public sector, there are no significant gaps in earnings premiums between blacks and whites; indeed, blacks may even have slightly higher earnings premiums than whites.

The black-white earnings premium gap might narrow in the public sector for any of the following reasons: (1) differences in selection into public sector between whites and blacks (i.e., relatively productive blacks and relatively

³⁶ Approximately 95 percent of legal services employment is in the private sector. Public sector legal services may include non-profits such as legal aid or government agencies such as offices of attorney generals and district attorneys. Among those working in legal services, whites are less likely to work in the public sector (5 percent) than blacks (11 percent), Asians (8 percent) or Hispanics (7 percent).

unproductive whites selecting into the public sector); or (2) more conscientious compliance with anti-discrimination or stronger affirmative action policies in the public sector; or (3) a pay structure based more on seniority or factors that differ from how productivity is evaluated in the private sector. Curiously, in the public sector, gaps between whites on the one hand and Asians and Hispanics on the other likely persist.

Within each racial group, law earnings premiums are lower in the public sector than in the private sector or in our baseline specification. This again could be because of differences in selection into the public sector across education levels (i.e., relatively more capable bachelor's and relatively less capable lawyers) or because of differences between the public and private sectors in how productivity is evaluated and rewarded.

In row 3, among those working in the private sector, we find larger earnings premiums and similar racial gaps compared to those in our baseline specification. In row 4, among those working in private sector legal services (law firms), we see the largest racial gaps in earnings premiums. Overall, these results suggest that differences in public and private sector employment act as an important mediator of racial differences in law earnings premiums.

Our last two alternative specifications in Table A1 look at geography. Earnings vary by geography, as does the racial makeup of the population.

Education may contribute to geographic concentration, for example by increasing the likelihood of educated workers obtaining high paying jobs in large, economically vibrant cities. Or if workers are not mobile, education may be more valuable in parts of the country where the local economy and education are more complementary. To help explore the extent to which geography may be a channel through which racial gaps in earnings premiums operate, we hold geography fixed in rows 5 and 6.

In Row 5 we control for the Census Public Use Microdata Area (PUMA) where the person reports working. A PUMA is a geographic area that is nested within a single state or territory, contains at least 100,000 people, consists of one or more census tracts or counties, and is geographically contiguous. The Census publicly disseminates PUMAs rather than more granular geographical identifiers to help preserve the confidentiality of individual respondents.

In Row 6, we control for the place of work PUMA, as well as allow for each state to have its own effect on the law premium itself, as opposed to just the overall earnings level. Both specifications show similar racial gaps in law earnings premiums to our main specifications, although the standard errors are larger, particularly in row 6. Overall, these results suggest that geography is not an important mediator of differences in law earnings premiums by race or ethnicity.

Figures and Tables

TABLE 1: SUMMARY STATISTICS FOR ACS AND SIPP REGRESSION SAMPLE

		SIPP (1996-2013)		ACS (2009-2014)		
		(1)	(2)	Law Proxies		(6)
		Law Degree	Bachelor's	(3)	(4)	Employed Bachelor's
				Lawyers	Professional Degree Narrow	Professional Degree Broad
<i>Percentages</i>						
<i>Sex</i>						
	Men	68%	52%	64%	61%	58%
	Women	32%	48%	36%	39%	42%
<i>Race / Ethnicity</i>						
	White	91%	85%	90%	89%	89%
	Asian	2%	5%	4%	4%	4%
	Black	5%	8%	4%	5%	5%
	Hispanic	2%	3%	2%	2%	2%
<i>College Major</i>						
	Humanities	29%	13%	27%	24%	24%
	Social Sciences	19%	12%	45%	37%	35%
	Business	12%	23%	14%	15%	15%
	STEM	6%	17%	8%	14%	13%
	Other Major	34%	35%	6%	10%	14%
<i>Time to Complete Bachelor's</i>						
		3.9	4.9			
<i>Public HS College Prep HS</i>						
	Public HS	79%	86%			
	College Prep HS	81%	68%			
<i>>2 years Adv. HS work in</i>						
	Math	83%	73%			
	Science	81%	74%			
	English	94%	89%			
	Foreign Lang.	79%	67%			
<i>Age</i>						
	25-29	7%	16%	9%	8%	8%
	30-39	28%	31%	29%	26%	26%
	40-49	34%	29%	25%	26%	26%
	50-59	23%	19%	25%	26%	27%
	60-65	8%	6%	12%	13%	14%
Total Observations		996	28,490	40,491	64,575	76,785
						1,109,256

Note: Percentages in columns may not sum to 100 percent because of rounding. Major categories in SIPP and ACS do not correspond perfectly because of differences in categorization within the surveys.

TABLE 2: DIFFERENCE IN LOG EARNINGS BETWEEN BACHELOR'S AND LAW DEGREE BY RACE
AND SEX FROM SIPP

Law Degree interactions with race	(1)	(2)	(3)
	Both sexes	Females	Males
Law*White	0.67*** [0.035]	0.80*** [0.067]	0.57*** [0.040]
Law*Minority	0.52*** [0.101]	0.71*** [0.131]	0.39*** [0.137]
Minority	-0.01 [0.017]	0.13*** [0.025]	-0.18*** [0.024]
College Major			
--- baseline Humanities			
Social Sciences	0.03 [0.027]	0.01 [0.039]	0.03 [0.035]
Business	0.24*** [0.024]	0.17*** [0.038]	0.26*** [0.030]
STEM	0.24*** [0.026]	0.15*** [0.050]	0.26*** [0.031]
Other Major	0.08*** [0.022]	0.09*** [0.031]	0.07** [0.030]
Public HS	-0.04** [0.018]	-0.03 [0.029]	-0.05** [0.021]
College Prep HS	0.03** [0.014]	0.02 [0.023]	0.03** [0.016]
>2 years Adv. HS work in			
Math	0.10*** [0.016]	0.10*** [0.024]	0.08*** [0.021]
Sciences	0 [0.017]	-0.01 [0.026]	0.02 [0.021]
English	-0.02 [0.021]	-0.04 [0.035]	0.01 [0.025]
Foreign Lang.	0.04*** [0.014]	0.04* [0.023]	0.04** [0.016]
Age	0.12*** [0.005]	0.07*** [0.008]	0.17*** [0.006]
Age squared/100	-0.14*** [0.006]	-0.09*** [0.010]	-0.19*** [0.008]
P-value for test of law premium equality	0.18	0.56	0.20
Observations	29,486	14,585	14,901
R-squared	0.138	0.038	0.132

Sample includes those age 25-65 with either a law or bachelor's degree. Columns 2 and 3 use subsamples defined by sex. Observations are individuals averaged over all years of the sample. Robust standard errors in brackets. Control variable for year fixed-effects, sex, race/ethnicity, birth state, and time to college completion interacted with major included but not reported. College major effects are reported at a four year graduation window with the baseline being Humanities majors.

TABLE 3: DIFFERENCE IN LOG EARNINGS BETWEEN BACHELOR'S AND LAW DEGREE BY RACE AND ETHNICITY FROM ACS

	(1)	(2)	(3)
	Lawyer	Professional Degree Narrow	Professional Degree Broad
Law Degree interactions with race			
Law*White	0.74 [0.005]	0.58 [0.004]	0.53 [0.003]
Law*Asian	0.69 [0.022]	0.48 [0.018]	0.47 [0.017]
Law*Black	0.69 [0.022]	0.54 [0.016]	0.52 [0.014]
Law*Hispanic	0.67 [0.031]	0.49 [0.025]	0.48 [0.023]
White Baseline			
Asian	0.03 [0.005]	0.03 [0.005]	0.03 [0.005]
Black	-0.11 [0.003]	-0.11 [0.003]	-0.11 [0.003]
Hispanic	-0.05 [0.006]	-0.05 [0.006]	-0.05 [0.006]
Age	0.09 [0.001]	0.09 [0.001]	0.09 [0.001]
Age squared/100	-0.09 [0.001]	-0.09 [0.001]	-0.09 [0.001]
P-value for F-test of law premium equality	<0.001	<0.001	<0.001
Observations	1,149,747	1,173,831	1,186,041
R-squared	0.19	0.19	0.18

Sample includes those age 25-65 with a bachelor's degree or a proxy for a law degree. In Column (1) the proxy is lawyer occupation. In Column (2) the proxy is professional degree holder excluding many occupations that are relatively unlikely to be occupied by law degree holders. See text for details. In Column 3, the proxy is once again professional degree holders, but is more inclusive, only excluding those in medical occupations. Observations are individuals. Robust standard errors in brackets. Control variables for sex, detailed college major, birth state, and year fixed-effects included but not reported. White, black, Asian and other exclude Hispanics. Hispanics of all races are coded as Hispanic. As all estimates are significantly different from 0 at the 0.001 level, Table 3 omits any stars indicating significance.

APPENDIX TABLE A1: ALTERNATIVE SPECIFICATIONS FOR LAWYER PREMIUM BY RACE

Specification or subsample	White	Asian	Black	Hispanic	R-Squared
(1) Working 35 Hours (n=988208)	0.59 [0.004]	0.53 [0.019]	0.56 [0.018]	0.51 [0.026]	0.19
(2) Public Sector (n=360920)	0.64 [0.008]	0.57 [0.035]	0.66 [0.027]	0.55 [0.05]	0.17
(3) Private Sector (n=788049)	0.77 [0.006]	0.73 [0.028]	0.72 [0.031]	0.72 [0.038]	0.19
(4) Private Sector Legal Services (n=783908)	0.72 [0.006]	0.62 [0.028]	0.53 [0.031]	0.62 [0.038]	0.18
(5) Control for PUMA (n=1148969)	0.67 [0.005]	0.64 [0.031]	0.61 [0.035]	0.64 [0.042]	0.22
(6) State Interactions with Law and PUMA Controls (Base state is California) (n=1148969)	0.67 [0.115]	0.6 [0.117]	0.62 [0.117]	0.62 [0.119]	0.22

Sample includes those age 25-65 with a bachelor's degree or lawyers. Observations are individuals. Robust standard errors in brackets. Control variables for sex, detailed college major, birth state, and year fixed-effects included but not reported. White, black, Asian and other exclude Hispanics. Hispanics of all races are coded as Hispanic. In all regressions except private sector legal services, identical sample restrictions are placed on both lawyers and bachelor's degree holders (work hours, sector, etc). In the private sector legal services regression, lawyers are restricted to those in private sector legal services, whereas bachelor's are restricted to those in the private sector.

Figure 1: ACS lawyer mean results by sex (2014 USD Thousands)

Notes: The left/darker portion of each bar is the mean earnings in thousands for a bachelor's degree holder from the given demographic group. The right/lighter portion of the bar is the estimated OLS premium for those working as lawyers, from an OLS regression with the same controls as reported in Table 3. Standard errors on the darker portion are extremely small. Standard errors for the lighter portion are less than 1 log point for the white sample and less than 3 log points for the minority samples.

Figure 2: ACS Narrow Professional mean results by sex (2014 USD Thousands)

Notes: The left/darker portion of each bar is the mean earnings in thousands for a bachelor's degree holder from the given demographic group. The right/lighter portion of the bar is the estimated OLS premium for those with a Professional Degree with the exclusions as described in text, from an OLS regression with the same controls as reported in Table 3. Standard errors on the darker portion are extremely small. Standard errors for the lighter portion are less than 1 log point for the white sample and less than 3 log points for the minority samples.

Figure 3: ACS lawyer premium quantiles (2014 USD Thousands)

Notes: The left/darker portion of each bar is the given percentile earnings in thousands for a bachelor's degree holder from the given demographic group. The right/lighter portion of the bar is the estimated premium for those working as lawyers, from a quantile regression with the same controls as reported in Table 3. Standard errors on the darker portion are extremely small. Standard errors for the lighter portion are less than 1 log point for the white sample and less than 3 log points for the minority samples.

Figure 4: ACS Narrow Professional quantiles (2014 USD Thousands)

Notes: The left/darker portion of each bar is the earnings in thousands for a bachelor's degree holder from the given demographic group. The right/lighter portion of the bar is the estimated premium for those with a Professional Degree with the exclusions as described in text, from a quantile regression with the same controls as reported in Table 3. Standard errors on the darker portion are extremely small. Standard errors for the lighter portion are less than 1 log point for the white sample and less than 3 log points for the minority samples.

Figure 5: ACS median raw earnings premium over time (Lawyers)

Notes: Raw earnings gap between Bachelor and Lawyer earnings. ACS years (after 2000 Census) are rounded into two year bins for smoothing. Standard Errors for the white subsample are around \$1000 and for the minority subsamples \$5000 or less. At the last point on the graph, one can reject ($p < 0.001$) equality for white and Asian or white and black samples but one cannot reject equality for the Hispanic and white samples ($p = 0.17$).

Figure 6: ACS median raw earnings premium over time (Narrow Professional)

Notes: Raw earnings gap between Bachelor and Lawyer earnings. ACS years (after 2000 Census) are rounded into two year bins for smoothing. Standard Errors for the white subsample are around \$1000 and for the minority subsamples \$5000 or less. At the last point on the graph, one can reject ($p < 0.001$) equality for white and Asian or white and black samples but one cannot reject equality for the Hispanic and white samples ($p = 0.26$).

Figure 7 Raw Earnings Median Premium (in thousands of \$) for SIPP over time

Notes: Data cannot reject that the premium for the white subgroup has been constant for the whole period ($p=0.30$) but we can reject, even for our small sample, that the premium for minorities has been the same over time ($p=0.02$). We also cannot reject that the premium after 2000 is constant across races ($p=0.45$).

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