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The Evolution of Labor Market Disparities between Hispanic and non-Hispanic Men: 1970-2019*

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Abstract

We describe how ethnic disparities in the labor market between prime aged Hispanic and non-Hispanic white men have evolved over the last 50 years. Using data from the March CPS, the Census, and the ACS, we examine several employment and earning outcomes. Hispanics have experienced sizable gains to employment: from a negative 2% prior to 1990 to a positive 4% after 2010 compared to non-Hispanics. In terms of earnings, Hispanics face a substantial negative disparity between 20% and 30% with some improvement after 2000. Most of the employment gain is driven by those with less than a high school degree, while the earnings disparity increases with education. Comparing Hispanic immigrants with natives reveals much of the employment and earnings gains are attributable to Hispanic immigrants, particularly immigrants not fluent in English.

Keywords: Hispanics, disparities, earnings, employment, education, immigration
JEL Classification: J15, J21, J31, J71

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1 Introduction

Hispanics constitute the fastest growing demographic in the US: their population share has risen rapidly from 3% in 1970 to over 18% in 2019, eclipsing now the share of black individuals. Yet Hispanics have received substantially less attention than black individuals in the literature on labor market disparities. Our goal is to track the employment and earnings differentials between prime aged Hispanic and non-Hispanic white men over the last fifty years using Current Population Survey (CPS), decennial Census, and American Community Survey (ACS) data.

Our main objects of interest are the coefficients to Hispanic ethnicity in Mincerian regressions that also include controls for education levels, potential experience, and state of residence. These regressions are run separately by year, allowing us to obtain annual estimates of ethnic disparities for various labor market outcomes. We focus on prime-age men between 25 and 54 years old to avoid well-known labor supply issues that complicate the analysis for younger and older workers, as well as women. The control group consists of white non-Hispanics. To give a reasonably complete account of individuals' labor market prospects, we look at both employment and earnings outcomes. Moreover, we examine both simple annual measures and full-time full year (FTFY) outcomes in an effort to control for the effects of hours worked. Finally, these analyses are conducted on various subpopulations to check the robustness of the results.

Our estimates reveal a rich and complex picture of the evolution of ethnic disparities over the last five decades. First, focusing on the probability of employment, Hispanics experienced a 1-2 percentage point disadvantage prior to 1990, which since then has turned into a 4 percentage point advantage. With respect to FTFY employment, the early disadvantage was larger (3-6 percentage points), while the recent gain has been similar. Second, turning to the earnings measures, we observe a U-shape pattern: the disparity was increasing prior to 2000, while since then we observe some improvement. Overall, however, the ethnic earnings disparity is substantial, varying from around 20% for annual earnings to 30% for FTFY earnings. In total, even though Hispanic individuals seem to be working more than non-Hispanics, they still face sizable earnings penalties.[1]

Next, we repeat the analysis for different subpopulations of interest: i) by education, ii) by immigration status, and iii) by English language proficiency. The first important takeaway of these analyses is that the employment gains Hispanic workers experienced after 1990 are almost entirely driven by workers who have not completed high school. Hispanic

[1] As an example, in the 1990s the employment of Hispanic individuals increased relative to non-Hispanics, while their earnings were flat or even fell.

and non-Hispanic individuals with a high school diploma or more education seem to have very similar employment patterns. As a result, workers without a high school diploma have experienced some earnings improvement, while the gains for workers with more education are much more modest. The second result of interest is that many of the gains observed in the last two decades generally and by education level are attributable to immigrants. To be more precise, immigrant workers drive the increase in Hispanic employment, as well as the U-shape pattern found in earnings, even though they face the largest earnings disparity in levels. Finally, we find that English fluency is an important determinant of the ethnic earnings disparity.

We extend the literature on the measurement of economic disparities in several ways. First and foremost, we document labor market disparities for a population that has not received much attention in labor economics with few exceptions. Altonji and Blank (1999) find substantial ethnic wage differences that more than doubled between 1979 and 1995 (from -15% to -38%) of which about two-thirds is explained by differences in education, age, and region of residence. Occupation, industry, and part-time employment status explain only a small fraction more. Age and education have sometimes been interacted in examining labor market outcomes. Lahey and Mosquera (2022) identify no substantial evidence of such interactions when comparing Hispanic and non-Hispanic high school graduates. A major shock to the manufacturing sector occurred in the early 2000's when imports from China increased dramatically. Kahn et al. (2022) report that the employment gap between Hispanics and non-Hispanics increased as a consequence, but not for long. Work by Hellerstein and Neumark (2008) and Hellerstein et al. (2014) highlights the importance of labor market networks. Hellerstein and Neumark (2008), in particular, find substantial evidence of segregation by ethnicity, much of which is explained by English language proficiency, underscoring the importance of sharing a common language. Other work includes Trejo (1997) and Borjas and Katz (2007) who focus exclusively on Mexican individuals.

The closest study to ours is Hirsch and Winters (2014), who use Census and ACS data on native born men age 18-61 who may be institutionalized but are not enrolled in school. They find evidence of ethnic disparities in both the probability individuals are non-earners and in their annual earnings. Differences in education explain about half of the ethnic differences in the non-earnings probability. Differences in education and age explain an even larger share of the ethnic differences in annual earnings for this population. We extend their analysis by presenting results on the intensive margin (FTFY employment and earnings), as well as highlighting ethnic disparities for various subpopulations of interest.

Second, we use large samples of data from three sources that encompass a span of just over fifty years: the Annual Social and Economic Supplement of the Current Population Survey

(1971-2019), the decennial Census (1970-1990), and the American Community Survey (2000-2019). The majority of the literature relies on data from only one source. While these data sets are all constructed under the auspices of the Census Bureau, they are collected using different sampling frames and different methodologies. These differences allow us to check on the robustness of the results; reassuringly, we obtain similar estimates of ethnic disparities from each data set.

The large size of these samples also permits estimation of disparities for various subpopulations with statistical precision. Many important papers in the disparities literature use data from the National Longitudinal Survey of Youth (NLSY), as those data contain variables such as test scores (Neal and Johnson, 1996), school quality (Lang and Manove, 2011), and actual employment experience. However, the small sample size of the NLSY makes analysis of the Hispanic population difficult. Our large samples allow us to examine disparities along multiple labor market dimensions conditional on educational attainment, immigration status, and English language proficiency. Differences in education and English language proficiency have been shown historically to explain a significant fraction of ethnic differences in employment and earnings (Trejo, 1997). Similarly, prior work has revealed the importance of examining results separately by immigration status (Chiquiar and Hanson, 2005). Hence, it is important to know how ethnic disparities in employment and earnings differ by education level, English language proficiency, and immigration status.

Third, we estimate disparities in both the intensive and extensive margins of employment. Specifically, we model both the probability an individual was employed full-time, full year last year (the intensive margin) and the probability an individual worked at all last year (the extensive margin), as well as the annual earnings for each group. Most of the disparities literature uses annual earnings to avoid reported problems with hours worked that could bias calculations of hourly wages (Baum-Snow and Neal, 2009). However, annual earnings measures conflate differences in employment (both hours worked per week and weeks worked per year) and earnings. By examining the earnings of full-time, full year workers we are able to focus more narrowly on the price of labor services.

The rest of the paper is organized as follows. In Section 2, we provide a description of our data sources and the econometric specification we use in the paper. Section 3 contains the estimated ethnic disparities for our main outcomes of interest. Sections 4 and 5 contain estimates for selected outcomes by immigration status and English language proficiency, respectively. Section 6 concludes. Finally, the Appendix contains descriptive statistics, results excluding imputed values, and supplementary results controlling for occupation and separately by education level.

2 Data and Model

2.1 Data

Our first data source is the Annual Social and Economic Supplement of the Current Population Survey, commonly referred to as the March CPS. We use information going back to 1971, since the question identifying Hispanic ethnicity first appears in that year.[2] We also employ Census data from 1970 through 1990 and American Community Survey (ACS) data from 2000 through 2019.[3]

Even though these data do consistently report Hispanic ethnicity, some caveats based on Antman et al. (2023) are in order. In particular, the question allowing respondents to self identify as Hispanic in the 1970 Census may have suffered from data quality problems that have been corrected in the 1980 Census and after. The reason is that the question asked for the respondent's "origin or descent" (Humes and Hogan, 2009), which may have led some non-Hispanic individuals to declare Hispanic origin. To cope with this concern, Antman et al. (2023) choose to focus on Mexican Americans and study the evolution of various outcomes for this group over time. However, they report that this choice is inconsequential, since the "basic trend for all Hispanics turn out to be similar to those reported here for Mexican Americans" (p. 179).

Here we employ a comparison with CPS as a check for the consistency of our Hispanic samples over time. Prior to 2003, the CPS identified Hispanics with a question similar to the 1970 Census: "What is the origin or descent of each person in this household?".[4] Hence, the CPS responses from 1971 to 2003 are directly comparable with the 1970 Census responses in terms of identifying Hispanic individuals. The fact that the estimates of ethnic differentials are fairly similar between the two data sets during this time period provides suggestive evidence that the different wording of the question identifying Hispanics in the 1970 Census does not significantly bias the consistency of our samples over time.

The analysis is restricted to civilian men, age 25 to 54, who are not living in group quarters.[5] Our focus is on ethnic disparities but, nevertheless, we need to take a stance on

[2]To give a sense of the population magnitude, the 1970 Census indicates that fewer than 3.5% of the population was of Hispanic ethnicity.

[3]All these data were obtained from IPUMS USA; see Ruggles et al. (2022) and Flood et al. (2022). The Census data differ from the ACS data in that the Census data are collected in March while the ACS data are collected throughout the year. As the labor force participation rate for white non-Hispanic men was relatively high in March 2000, we use the 2000 ACS data rather than the 2000 Census data so that the 2000 and 2001 data are more similar.

[4]In 2003 and later years, CPS changed the question to be consistent with the post-1980 Census wording that explicitly ask respondents whether they are Hispanic or Latino.

[5]Those living in group quarters are potentially an interesting population as they include those in correction facilities which, as noted in Western and Pettit (2005), are disproportionately populated by young, less

how to treat race. White non-Hispanics comprise the control group to which Hispanics are compared. Most Hispanics are classified as white in 1970 and 1980 Census data. However, beginning in 1990, an increasing fraction (between 25 and 45%) were classified as being of "Other Race, n.e.c". These individuals are included in our Hispanic sample.[6] All other racial groups (primarily Black and Asian) are excluded. The resulting two groups will henceforth be referred to as the non-Hispanic and Hispanic samples. In total, our data consist of: i) a CPS sample of 1,355,590 persons of whom 12.55% are Hispanics; and, ii) a Census/ACS sample with 12,127,341 persons of whom 18.09% are Hispanics.[7]

2.2 Econometric Framework

The CPS, Census, and ACS data provide a wide array of outcomes to evaluate workers' labor market prospects over time. Our measures of disparities are the coefficients, β, for the Hispanic ethnicity dummy, d_i, from Mincerian regressions where the outcome of interest, y_i is modeled using a linear specification:

$$y_i = d_i\beta + x_i'\gamma + \epsilon_i. \tag{1}$$

The vector of control variables, x_i, includes education, a cubic in potential experience, and dummy variables for state of residence (summary statistics are reported in Appendix D).[8] In the CPS sample, prior to 1992, while it is known how many years of education an individual had completed, there is no way to know definitively whether completing these years resulted in a degree. To make consistent comparisons over time, we grouped together all individuals with twelve years of education as high school graduates and those with four years in college as having a bachelor's degree. This results in five education groups for the CPS sample (less than high school, some high school, high school, some college, and college or more). Similarly, there are five education groups in the 1970 and 1980 Census samples, and seven education groups thereafter in the Census/ACS sample.[9]

Finally, a large fraction of Hispanic individuals are first or second generation immigrants, hence controlling for local labor market effects seems important. To do so, we include the

educated persons. However, ACS sampling excluded those in group quarters prior to 2006. Moreover, a few persons reporting no education at all or reporting arrival in the United States more than two years before their reported birth are excluded.

[6]The similarity of results between the data sets is again reassuring, because the CPS does not suffer from this race categorization issue.

[7]See Appendix D for a further breakdown by year and sample.

[8]The 1970 Census identifies only 43 states and the District of Columbia. The other seven states receive a single code.

[9]Seven education groups are recognized in the 1990 Census and ACS samples, as those with more than a college degree are split into Masters, Professional, and Ph.D. recipients.

state of residence as a control. This inclusion, however, does not seem to affect the estimates of ethnic disparities by much.[10] Similarly, in Appendix B we also include occupational controls, which also does not have a large impact. In general, it is well-known from the literature on gender and race disparities that there is a trade-off regarding which variables should be included as controls, since many of these are also individuals' endogenous choices. Taking these concerns into account, we have adopted a relatively parsimonious specification. Moreover, we present estimates for different subgroups separately in Sections 4, 5, and in the Appendix.

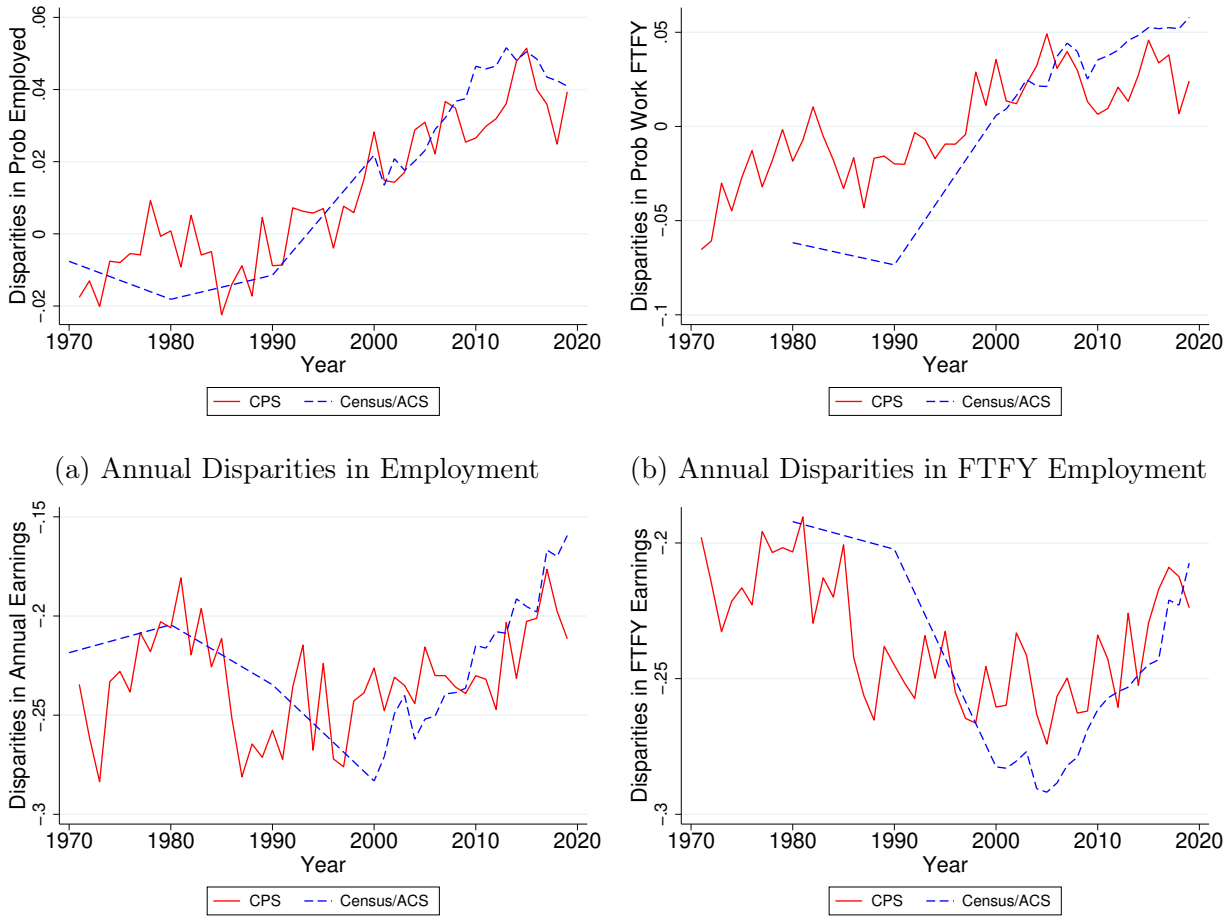
Similar to the work of Hirsch and Winters (2014) and Bayer and Charles (2018) focusing on black men, we model the effect of covariates on outcomes separately by year. In this specification, the β's identify how, on average and given these controls, Hispanic men fare relative to non-Hispanic men. These differences are then plotted over time. While important variables, like actual experience, are not available, these data constitute large representative samples collected using similar methodology. The continuity of the data allows us to describe the evolution of ethnic disparities in labor market outcomes for the last fifty years. The size of the samples produces highly statistically significant estimates: all standard errors are on the order of 10^{-3}, meaning all the estimates are statistically significant at the 1% level, unless explicitly noted otherwise.[11]

To give a reasonably complete account of individuals' labor market prospects, we present results for two measures of employment and two measures of earnings. The employment measures include simple indicator variables identifying: i) the probability of having been employed in the prior year, capturing the extensive margin of employment; and ii) full-time, full year employment in the prior year, capturing the intensive margin of employment. As is the norm, full-time full year employment is defined as employment for 35 or more hours per week and 50 or more weeks per year.[12] The earnings measures include: i) the natural log of annual earnings, capturing labor market returns for all employed individuals; and ii) the natural log of annual earnings conditional on full-time, full year employment. Both earnings measures are calculated after imposing a 1% trim for the sample of men reporting positive values. This approach successfully excludes top-coded observations. We provide

[10]Controlling for state of residence lowers ethnic disparities in employment outcomes by roughly 1 percentage point and raises ethnic dispairities in earnings outcomes by roughly 4 percentage points.

[11]The standard errors for regressions by education group in the CPS sample (Appendix C) are on the order of 10^{-2} but all estimates are still statistically significant at the 1% level.

[12]Full year work constitutes employment 50 or more weeks in a year. In the Census years for which detailed information is available, 91% of those coded as full-time, full year workers reported working 52 weeks. Hours worked per week is more heterogeneous. Full-time work is defined as working 35 or more hours per week. 50% of those classified as full-time, full-year workers reported working 40 hours per week, another 14% reported working 50 hours per week, and hours varied from 35 to 80.



(a) Annual Disparities in Employment

(b) Annual Disparities in FTFY Employment

(c) Annual Disparities in Earnings

(d) Annual Disparities in FTFY Earnings

Figure 1: Ethnicity coefficients from a linear regression of various outcomes run separately for each year; other controls include education level, a cubic in potential experience, and state dummies

summary statistics for the outcomes of interest in Appendix D. Some of these outcomes (indeed as many as 20%) were imputed by the statistical agencies that collected the data. In Appendix A, we report the results excluding individuals with imputed values.[13] The results look markedly similar.

3 The Evolution of Ethnic Labor Market Disparities

Figure 1 illustrates the ethnic disparities over time for our four labor market outcomes. The solid lines represent the results from the CPS; the dashed lines the results from the Cen-

[13]Similar to Neal (2006), we did not reweight the samples to account for changes in composition due to non-response, since Hirsch and Winters (2014) report that estimates are insensitive to such reweighting.

sus/ACS. To begin with, we estimate a specification modeling the probability a worker was employed for at least one week last year (see Figure 1a). As is the case for all the outcomes examined here, the results are remarkably similar between the data sets and all estimates for Hispanic ethnicity are statistically significant. Hispanics have seen the employment gap evolve from a 2 percentage point disadvantage in 1980 to almost a 5 percentage point advantage in the 2010s. These results are not driven by those working full-time, full year as the pattern is similar when looking at the probability of employment conditional upon not having worked full-time, full year. Moreover, the allocated and unallocated measures are substantially the same implying the results are not an artifact of statistical imputations (Figure 4 in Appendix A). The sizable increase in the employment outcomes of Hispanics vis-a-vis non-Hispanic workers is in sharp contrast with racial differences. As found by Hirsch and Winters (2014) and Bayer and Charles (2018), black men have been consistently between 5 and 10 percentage points less likely to report employment in the last year compared to white men.

We also look at the intensive margin of employment by estimating a specification modeling the probability a worker is employed full-time, full year (Figure 1b). Hispanic men appear to have experienced a sizeable increase in the probability of FTFY employment relative to non-Hispanic men, such that in 1971 they were about 6 percentage points less likely and now they are 4 percentage points more likely to be employed full-time, full year. We have also estimated the model for weeks and hours worked (conditional upon working), which are alternative measures of the intensive margin of employment (not shown but available upon request). The gap in weeks worked reveals that Hispanics have moved from about a 3 percentage point disadvantage to a 2 percentage point advantage. Hispanics have a disadvantage in hours worked, but that disadvantage was never greater than 3 percentage points and does not show much of a trend over time.

Turning to earnings outcomes allows us to make a further connection with previous work, since annual earnings is the main outcome used in the racial disparities literature. Figure 1c plots the log annual average earnings gap between Hispanics and non-Hispanics with positive earnings in the prior year. The earnings gap increased from 20% to more than 25% between the mid-1970's and 2000, but has been decreasing since (falling below 20% after 2015). Although the magnitude of the recent ethnicity earnings penalty is significant, the results of Figure 1c show evidence of weak convergence between Hispanics and non-Hispanics over time. This is in sharp contrast with the salient stagnation between Blacks and whites after 1990 found in the racial disparities literature (Hirsch and Winters 2014; Bayer and Charles 2018). Annual earnings, however, are a function of not just whether an individual is employed or not (the extensive margin), but also of how many hours per week and how

many weeks per year the individual is employed (the intensive margin). To account for these concerns, we estimate disparities for individuals employed full-time full year (FTFY) in the prior year. Focusing on FTFY employees controls in large part for differences on the intensive margin and avoids the strong cyclical component of hours worked associated with monthly measures, which may affect different groups in heterogeneous ways.[14]

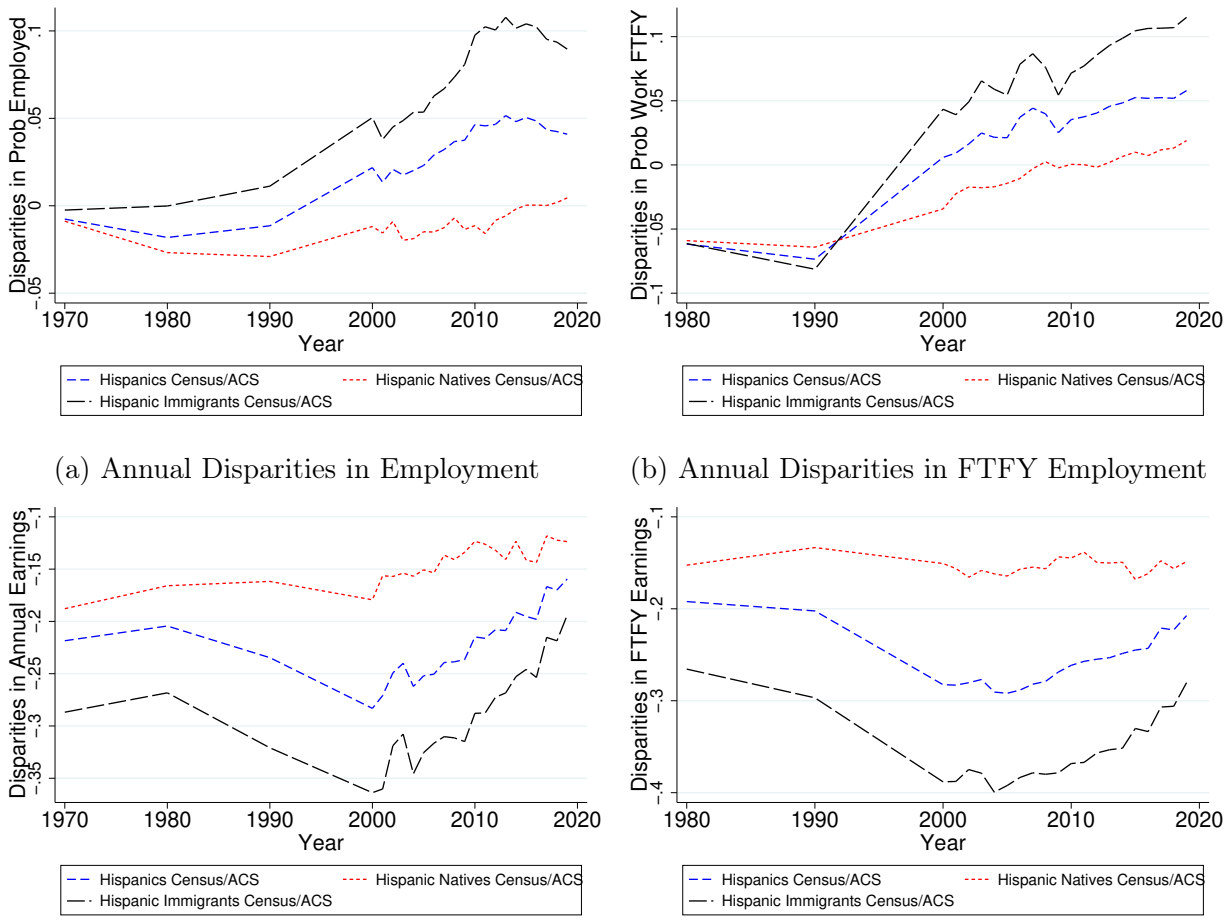
In Figure 1d, we report how Hispanics working full-time, full year fare relative to their non-Hispanic counterparts. The gap was around 20% in the 1970's and 1980's, widened about 5 percentage points between 1985 and 2005, and has since rebounded back to about 20%. Similar to the unconditional earnings measure, there is evidence of convergence between Hispanic and non-Hispanic workers, although the magnitude of the disparity of FTFY earnings is larger. The differences in employment outcomes we saw above partially account for the convergence of the earnings measures.[15] Moreover, in Figures 5a and 5b in Appendix B we present the results from a specification with occupational dummies. Controlling for occupation lowers the earnings disparity by roughly one fifth for both groups, but leaves the overall U-shaped pattern unchanged.[16]

Finally, in Appendix C we report disparities estimated separately by education group using the Census/ACS and CPS data. Splitting the results by education groups sheds further light on the main messages of this Section. First, the increase in employment observed after 1995 for Hispanic workers is almost entirely driven by workers who have not completed high school. Hispanic and non-Hispanic individuals with a high school diploma or more education seem to have very similar employment patterns. Second, Hispanic workers on average experienced a widening of the earnings gap prior to 2000, particularly those working FTFY. Since then they have experienced some earnings convergence with their non-Hispanic counterparts. That convergence is particularly large for those with less than a high school degree. However, the earnings gap appears to increase with education: it rises from a 5 to 10

[14]Baum-Snow and Neal (2009) find evidence that respondents to the Census and ACS, particularly minorities, may report hours worked per day rather than hours worked per week in the previous year, suggesting that the Census/ACS measures may fail to include some full-time workers. The CPS does not, however, appear to suffer from a similar coding error.

[15]Since Hispanics' FTFY employment has substantially increased over time and if there is positive selection into employment, then the fact that the earnings outcome gap for this population shrank may indicate even greater earnings improvement for Hispanics as compared to non-Hispanics. This argument does not rule out changes in unobserved characteristics within the population of FTFY employed workers. It is important to note, however, that the reported results are *relative* to non-Hispanic workers with similar observable characteristics. For selection on unobservables to have such a large impact would mean that this selection affects Hispanics in a way that is markedly different than non-Hispanics.

[16]The importance of occupational sorting for ethnic earnings disparities seems to be smaller than the one identified in the gender gap literature. Blau and Kahn (2017) report that 20 occupational controls account for roughly one-third of the observed gender earnings gap in 2010 (Table 4, p. 799), while here 14 such controls account for only about 20% of the observed ethnic earnings gaps.



(a) Annual Disparities in Employment

(b) Annual Disparities in FTFY Employment

(c) Annual Disparities in Earnings

(d) Annual Disparities in FTFY Earnings

Figure 2: Ethnicity coefficients from a linear regression of various outcomes run separately for each year and immigration status; other controls include education level, a cubic in potential experience, and state dummies

percentage point disparity in annual earnings for those with less than a high school education to 15 percentage points or more for those with a high school degree or some college and 25 percentage points for those with a bachelors degree or more. Even for FTFY workers, the earnings gap for Hispanics with a bachelors degree or more is between 25 and 30 percentage points, as compared to about 20 percentage points for those with less education.

4 The Role of Immigration

In the previous Section, we identified substantial differences in measures of and trends in labor market disparities between Hispanic and non-Hispanic men. However, the Hispanic population is a diverse one. The measured disparities may differ substantially for different

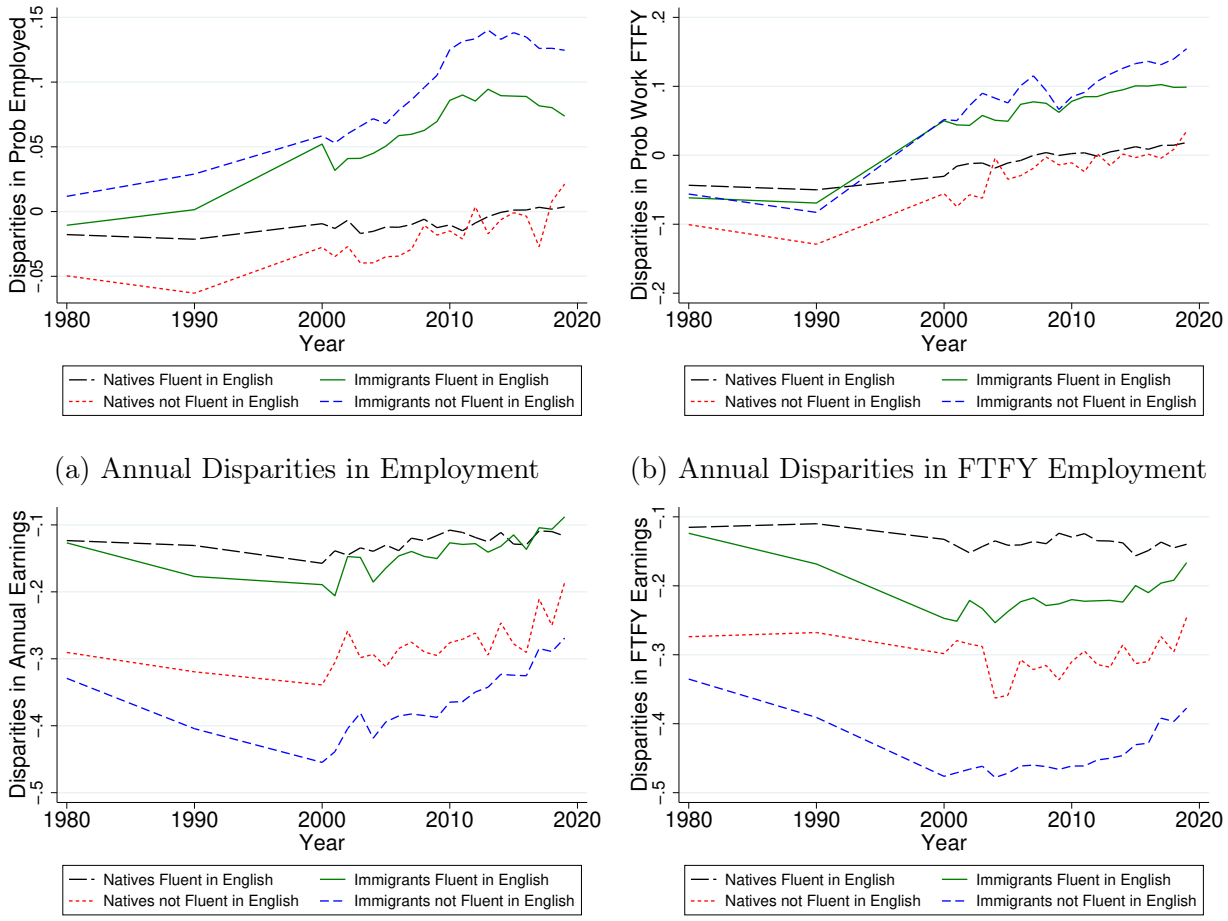
segments of the Hispanic population. Of particular concern here is the distinction between immigrant and native populations.[17] Sample sizes preclude analysis of immigrants in the CPS, but not the Census/ACS. These data indicate that the fraction of Hispanics who are immigrants has changed substantially over time, rising about ten percentage points every decade: from 20% in 1960 to 60% in 2000, then falling back to 50% between 2010 and 2019. Moreover, the analysis of different education groups reveals that the differences we observe in the trend of disparities for Hispanics could be driven by differences in the composition of the sample. To explore this possibility, we compare immigrant and native Hispanic men to non-Hispanic men separately. The results are illustrated in Figure 2; for comparison purposes, the results for the full Hispanic sample are also presented.

The differences between native born and immigrant Hispanics are striking. First, much of the increase in the probability of employment observed for Hispanics as a whole is driven by substantial gains among immigrant Hispanics. They were essentially as likely to be employed as non-Hispanics with similar characteristics between 1960 and 1990, but by 2000 they had a 4 percentage point advantage that rose as high as 11 in 2013 before falling back to 9 percentage points in 2019. On the other hand, native Hispanics have experienced a much more modest gain in employment over time as compared to non-Hispanics. Figure 2a indicates that native Hispanics experienced a 1-3 percentage point disadvantage up till the Great Recession, after which the trend is upward, recently reaching levels similar to non-Hispanics. The differences are slightly less pronounced for FTFY employment. In this case, both groups faced a large penalty relative to non-Hispanics in 1980, but experienced gains between 1990 and the advent of the Great Recession in 2008. Hispanic immigrants experienced a substantially diminished probability of working FTFY during the Great Recession, but have since recovered (Figure 2b).

Figures 2c and 2d illustrate the results for our earnings measures. The main takeaway is the U-shaped pattern of Hispanic disadvantage in annual and FTFY earnings over time is driven entirely by the population of immigrants. Immigrant Hispanics have clearly experienced a greater disadvantage than native Hispanics, a disadvantage that approached 40 percentage points in the early 2000's but has since improved to 20 percentage points in the case of annual earnings and 30 percentage points for FTFY earnings. By contrast, native Hispanics have experienced a modest improvement in annual earnings but little change in FTFY earnings, in which case their earnings disadvantage has hovered around 10-15 percentage points for the last forty years.[18]

[17] Earlier work by Hirsch and Winters (2014) focused exclusively on native born Hispanics.

[18] In this respect, the evolution of the ethnic disparity in earnings is similar to the evolution of the racial disparity. As found by Hirsch and Winters (2014) and Bayer and Charles (2018), the disadvantage of black workers in annual earnings has not decreased in the last 40 years. The magnitude of the racial earnings



(a) Annual Disparities in Employment

(b) Annual Disparities in FTFY Employment

(c) Annual Disparities in Earnings

(d) Annual Disparities in FTFY Earnings

Figure 3: Ethnicity coefficients from a linear regression of various outcomes run separately for each year by Immigration Status and English Fluency; other controls include education level, a cubic in potential experience, and state dummies

5 The Role of Language

The analysis of Section 4 identified an important role for immigration in driving ethnic labor market disparities. In particular, a large fraction of the employment gains and relative earnings convergence between Hispanics and non-Hispanics found after 1995 can be attributed to Hispanic immigrants. Thus, the immigrant/native divide is an important dimension to consider when evaluating ethnic disparities. One of the reasons for the immigrant/native divide may lie in their different language skills. Hellerstein and Neumark (2008) find substantial workplace segregation by ethnicity and identify segregation by English-language proficiency as a major driver of that segregation. The Census and ACS ask respondents to self-report

disparity is much larger though, since it has hovered consistently around 25-30 percentage points.

their language skills. We distinguish between those who report that English is their native language or who report that they speak English very well (henceforth designated persons Fluent in English) and all other respondents. Fewer than 2% of the non-Hispanic sample reports poor English language skills, as compared to 44% of Hispanics. Among Hispanics, 11% of natives and 69% of immigrants report not being fluent in English. Figure 3 presents results comparing native and immigrant Hispanic populations separately by language skill as compared to the full non-Hispanic sample.

Both employment probabilities and earnings differ substantially by language skill. Natives who are fluent in English were generally less disadvantaged as regards employment outcomes than natives who are not fluent in English prior to the early 2000's. Natives who are not fluent have gained ground over time and are now about equally likely to be employed and employed FTFY as compared to both their fluent counterparts and non-Hispanics. In general, both fluent and non-fluent Hispanic immigrants have a higher probability of being employed than the non-Hispanic population and all have gained ground over time relative to the non-Hispanic population. Among Hispanic immigrants, those not fluent in English have a higher probability of being employed and being employed FTFY than those who are fluent, though the FTFY difference is much smaller (Figures 3a and 3b). Earnings disparities show a more consistent pattern with immigrants who are not fluent experiencing the greatest disparities, followed by natives who are not fluent, immigrants who are fluent, and natives who are fluent. English language skills are clearly a very important predictor of labor market disparities.

6 Conclusion

The goal of this paper is straightforward: to describe how ethnic disparities in the labor market have evolved over time for prime aged men. To this end, we employ data spanning the period 1970 through 2019 from the CPS, the Census, and the ACS. Using a parsimonious Mincerian specification that controls for education, a cubic in potential experience, and state dummies, we compare outcomes separately by year for Hispanic and non-Hispanic white men. The different data sources yield estimated effects that are remarkably similar in level and trend.

Hispanics as a whole have experienced substantial gains in employment relative to non-Hispanics. While they were less likely to be employed or to be employed full-time full year between 1970 and about 2000, Hispanics have since 2000 become more likely to be employed than non-Hispanic men. Despite this improvement in employment, however, Hispanic men still suffer a substantial earnings disparity. That disparity appears to have increased between 1970 and 2000 (from a 20% to almost a 30% disadvantage), even as their probability of

employment increased. Since 2000 there has been some improvement, with the differential returning to about the 20% level.

Splitting the results by educational attainment, we find that much of the employment gain is driven by those with less than a high school degree. As a result, it is this population that experiences the largest decrease in earnings disparity. Importantly, the earnings disparity actually increases with education. Delving deeper to look at immigrant status and English language proficiency, we find that much, but not all, of the employment gains as well as the U-shaped earnings patterns are explained by immigrants, particularly immigrants not fluent in English. Even though all these populations are somewhat more likely to be employed full-time full year than non-Hispanics, they all experience substantial earnings disparities, ranging from around 14% for natives fluent in English to 40% for immigrants not fluent in English. These results suggest a substantial and persistent ethnic difference in the price of labor.

We believe this descriptive analysis to be of interest for at least two reasons. First, it shows the limitations, as well as the potential of specific policy proposals to eliminate ethnic disparities in the labor market. For example, the finding that earnings disparities increase with education level suggests that increasing the fraction of Hispanics who attend college will not eliminate such disparities. On the other hand, the results suggest that providing English language training has the potential to significantly increase earnings. Second, our results can be combined with other types of research (e.g., audit studies or experiments) to shed light into the mechanisms that shape the labor market experience of Hispanic workers. For example, in a recent meta-analysis of discrimination studies in the US labor market, Quillian et al. (2017) report some evidence of declining hiring discrimination against Hispanic workers. This result is consistent with our findings of increasing Hispanic employment over time. Due to the small number of field experiments including Hispanic workers, however, Quillian et al. (2017) mention that there is high uncertainty in these results and more evidence is needed to establish the trend in hiring discrimination against Hispanics with greater precision. In general, further research is needed to explain why Hispanic workers experience persistently lower returns in the labor market as compared to their non-Hispanic counterparts.

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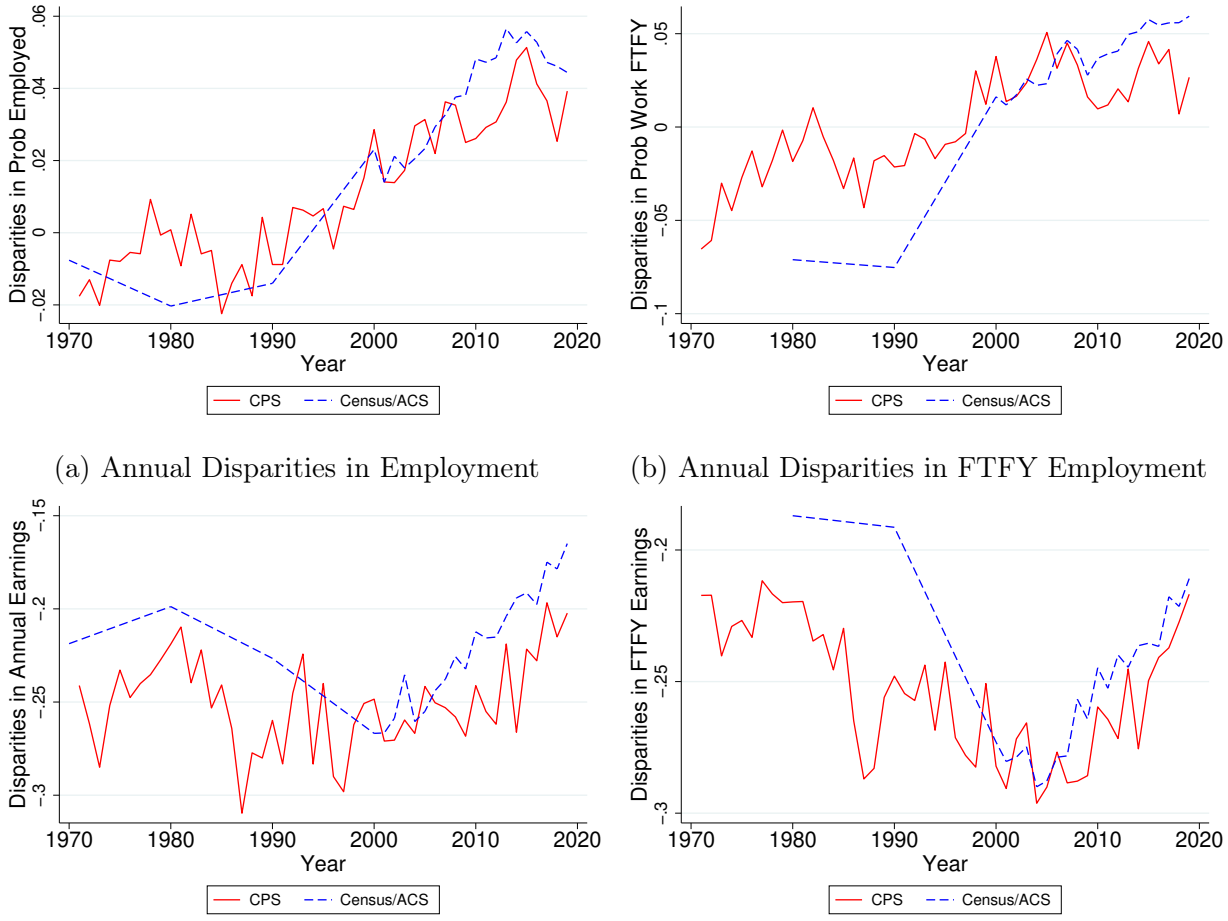
A Unallocated Observations

In the main body of the paper, we report the estimates of ethnic disparities using allocated values. That is, for some individuals in the sample these values were imputed by the statistical agencies that collected the data. To explore whether the results are sensitive to these allocations, we reestimated all the models using only the individuals with unallocated measures. Overall, the results are robust to these imputations.



(a) Annual Disparities in Employment

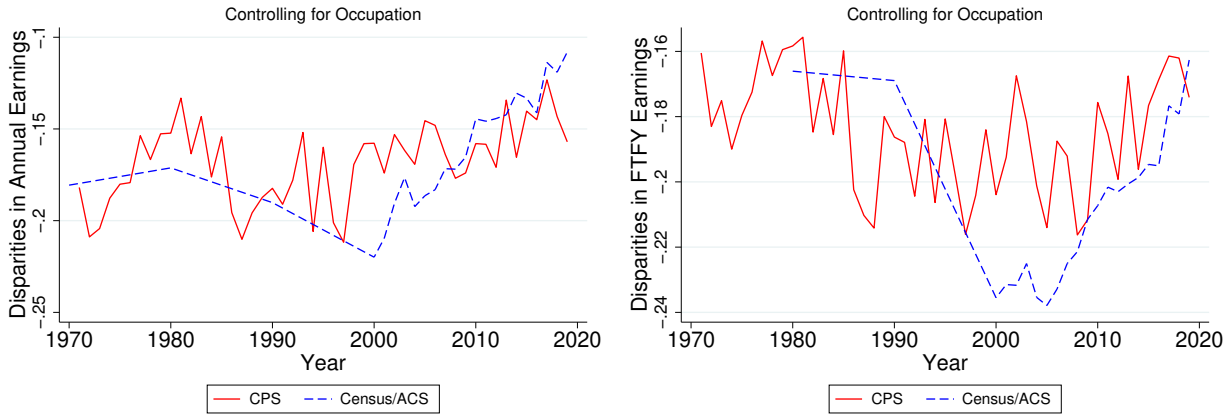
(b) Annual Disparities in FTFY Employment

(c) Annual Disparities in Earnings

(d) Annual Disparities in FTFY Earnings

Figure 4: Ethnicity coefficients from a linear regression of various outcomes run separately for each year; other controls include education level, a cubic in potential experience, and state dummies; observations with imputed values are excluded.

B Occupations



(a) Annual Disparities in Earnings

(b) Annual Disparities in FTFY Earnings

Figure 5: Ethnicity coefficients from a linear regression of log annual earnings for all employed and full-time, full year workers run separately for each year; other controls include education level, a cubic in potential experience, state dummies, and occupation dummies.

We use the harmonized occupational classification implemented by IPUMS based on the Census Bureau's 2010 occupation classification scheme. In the interest of harmonization, the scheme has been modified to achieve the most consistent categories across time. It offers a consistent, long-term classification of occupations that covers the whole period of our sample. The CPS asks workers directly about their main occupation last year (the relevant variable is "OCC10LY"). Unfortunately, Census and ACS data contain occupational information only at the time of the interview and that is the variable we use ("OCC2010").

Both OCC10LY and OCC2010 are detailed four-digit classifications. IPUMS aggregates occupations into 26 main categories, available in Ruggles et al. (2022). For reasons of statistical power (due to our CPS sample sizes by year), we aggregated these classifications further into 14 occupational groups: Management/Financial/Legal, Computer/Mathematical/ Engineering/Technicians, Social Sciences, Social Services/Healthcare, Construction/Mining, Production, Transportation, Protective Services/Military, Food Preparation/Cleaning/ Personal Care, Sales, Administrative Support, Farming/Fisheries/Forestry, Arts/Sports/Media, and Installation/Maintenance/Repair. To control for occupational sorting, we add a dummy variable for each one of these 14 occupational groups. In total, controlling for occupation reduces the magnitude of the annual and FTFY earnings by about 20%, but has no impact on the time trend of ethnic disparities.

C The Role of Education

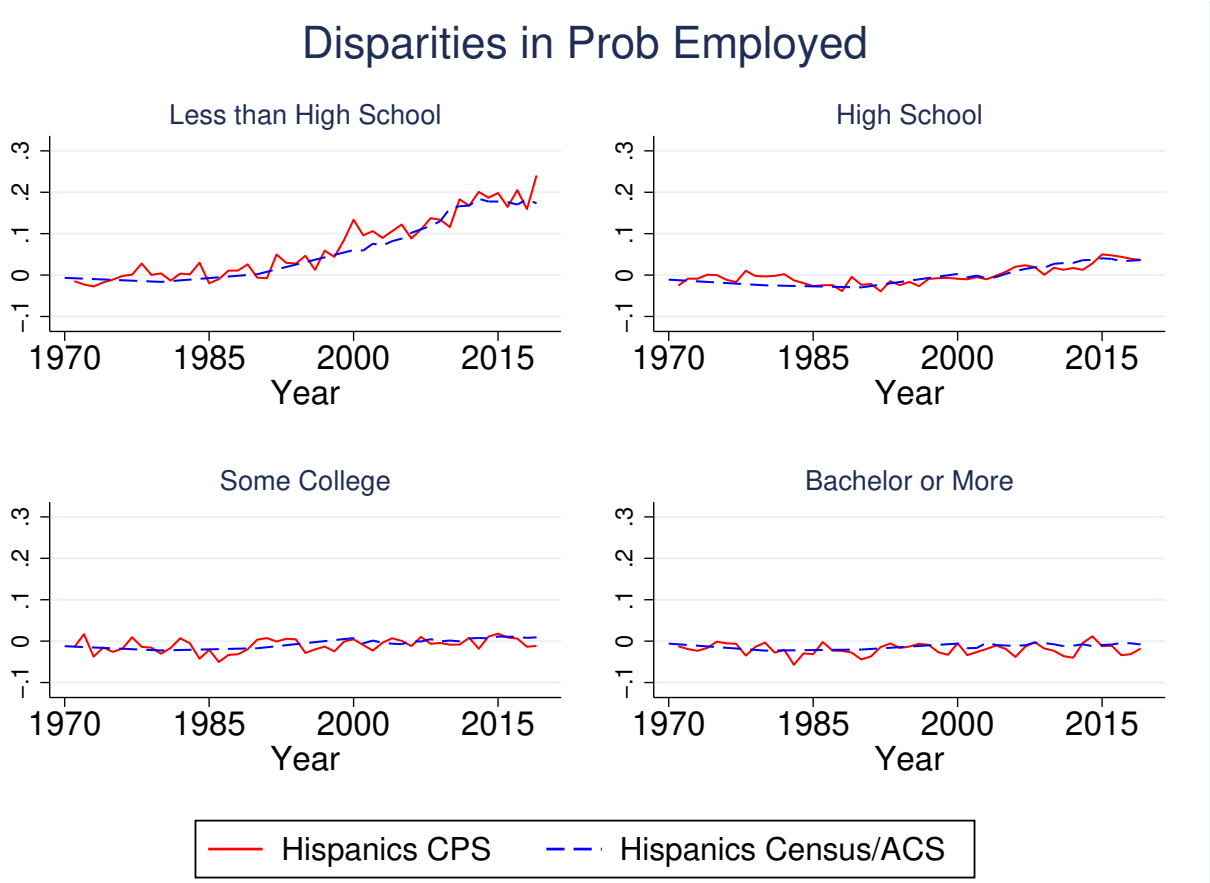


Figure 6: Annual Disparities in Employment by Education Group.
Ethnicity coefficients from a linear regression of the probability of working at least one week during the previous year run separately for each year and education group; other controls include a cubic in potential experience, and state dummies.

In this section, we replicate the analysis of Section 3 separately for individuals with four different levels of education: those who did not complete high school, high school graduates, those with some college education, and, finally, those with at least a bachelor's degree.[19] To understand why we perform this analysis, notice that our baseline specification allows for differences across individuals by education level but not for differences across populations by education level. That is, in equation (1) we did not interact education level with the ethnicity dummies or with potential experience. Hence, the education subsample results provide a sort

[19]In the CPS sample, prior to 1992, while it is known how many years of education an individual had completed, there is no way to know definitively whether completing these years resulted in a degree. To make consistent comparisons over time, we grouped together all individuals with twelve years of education as high school graduates and those with four years in college as having a bachelor's degree.

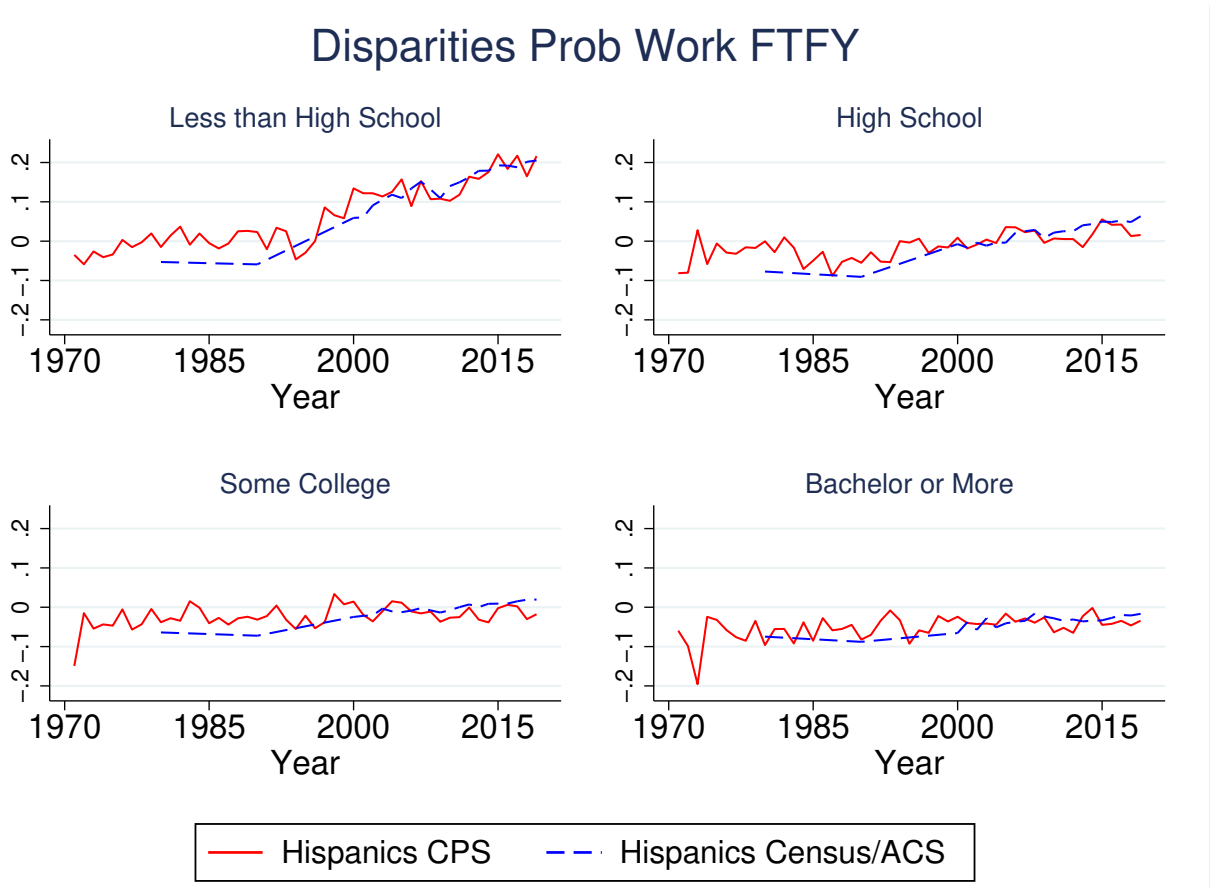


Figure 7: Annual Disparities in FTFY Employment by Education Group.
Ethnicity coefficients from a linear regression of the probability of working at least one week during the previous year run separately for each year and education group; other controls include a cubic in potential experience, and state dummies.

of robustness check of our analysis in Section 3. They may also provide evidence regarding whether attaining more education may act as an equalizing force for Hispanic individuals, which is important to know for policy purposes.

In Figures 6 and 7 we plot the estimated disparities for the probability of having been employed and for the probability of having been FTFY employed in the prior year, respectively. The main takeaway from Figures 6 and 7 is that the positive employment gradient between Hispanics and non-Hispanic workers found in Figure 1 is almost entirely driven by individuals who have not completed high school. There does not seem to be any gradient or trend over time for individuals with a high school education and above. In contrast, since 1995, Hispanic workers with less than a high school education have been consistently working more than their non-Hispanic counterparts. The magnitude is also considerable: after 2015, low-education Hispanics work 20 percentage points more than non-Hispanic workers!

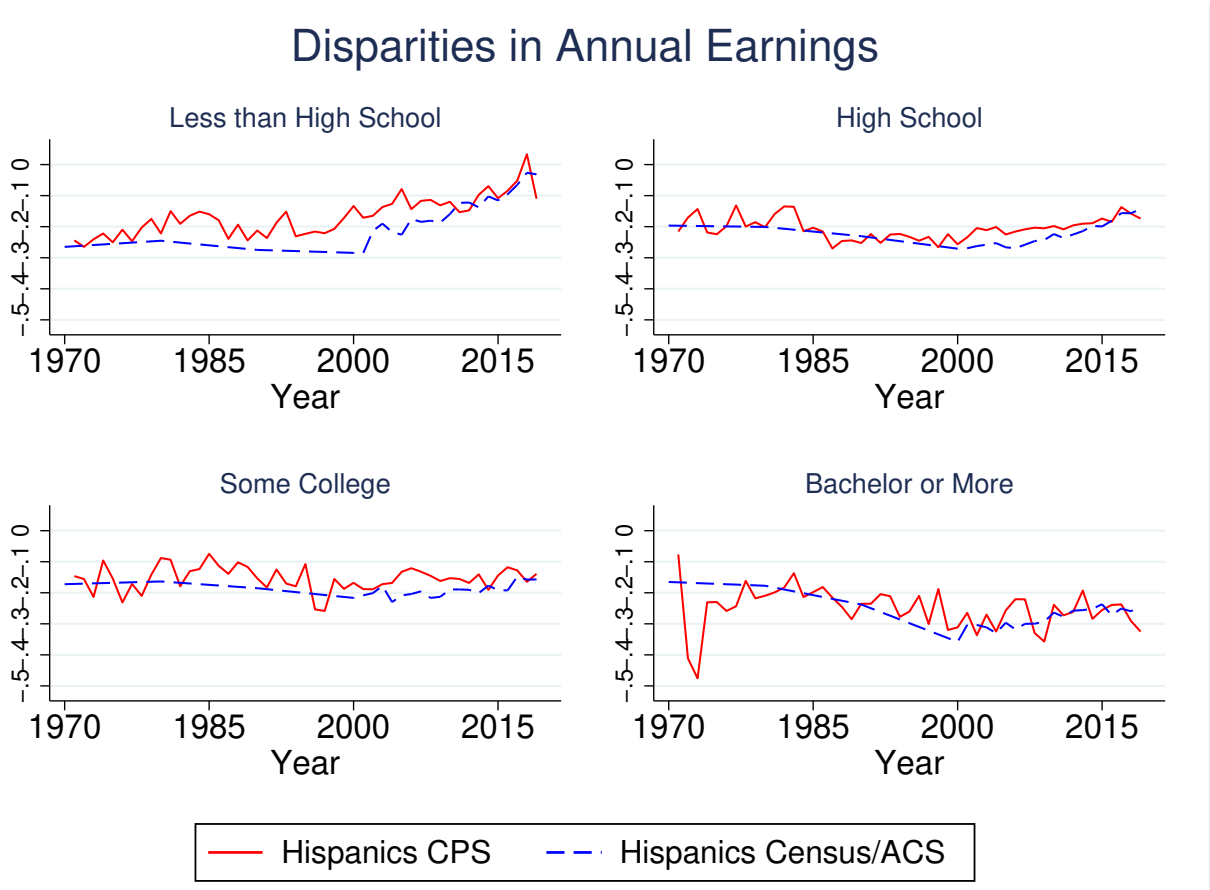


Figure 8: Annual Earnings Disparities by Education Group.
Ethnicity coefficients from a linear regression of log annual earnings run separately for each year and education group; other controls include a cubic in potential experience, and state dummies.

These differences in employment are also reflected in the earnings disparities among the education groups, shown in Figures 8 and 9. They certainly account for a large part of the annual earnings convergence found between Hispanics and non-Hispanics with less than a high school education. This group drives much of the annual earnings convergence post 2000 found in Figure 1. This convergence is clearly not present for the other three education groups and it is not as strong for the FTFY earnings of the less than high school group. While there is some evidence of convergence for the other education groups and for FTFY earnings, that evidence is clearly much weaker. What is even more surprising is that workers with a college degree or more face the largest earnings disparity across all education groups. One plausible explanation for this disparity could be that non-Hispanic men are more likely to hold a more advanced degree. This does not, however, seem to be the case in our data. In general, more education does not seem to reduce ethnic earnings disparities. This result provides a cautionary note for policy makers: providing more education without the support

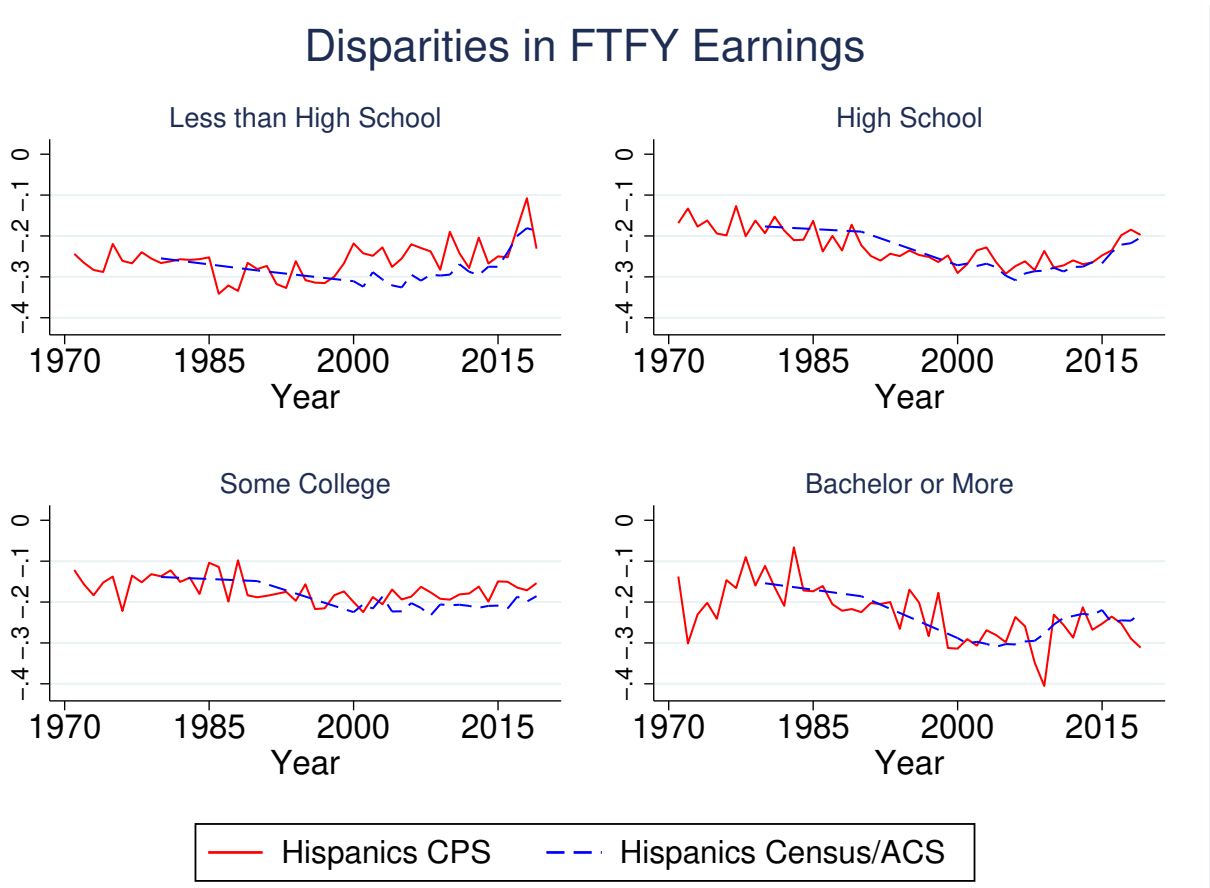


Figure 9: Annual Earnings Disparities for Men Employed FTFY by Education Group. Ethnicity coefficients from a linear regression of log annual earnings for full-time, full year workers run separately for each year and education group; other controls include a cubic in potential experience, and state dummies.

of other policies seems unlikely to have a large impact on ethnic earnings disparities.[20]

[20] A disadvantage of the data sets we use is that they do not contain information on school quality. Although the racial disparities literature has provided evidence that school quality is an important factor behind racial disparities, Lang and Manove (2011) find no evidence that school quality accounts for wage differentials using NLSY data.

D Descriptive Statistics

Table 1: Census/ACS Sample Sizes

Year	Source	Number of Observations	Weighted % Hispanics
1970	Census	587,618	4.12
1980	Census	1,769,454	6.56
1990	Census	2,163,158	9.19
2000	ACS	66,078	14.22
2001	ACS	208,996	15.10
2002	ACS	185,842	16.10
2003	ACS	203,733	16.60
2004	ACS	200,995	17.25
2005	ACS	478,244	17.99
2006	ACS	476,607	18.62
2007	ACS	473,268	19.13
2008	ACS	464,698	19.38
2009	ACS	461,929	19.68
2010	ACS	460,895	20.02
2011	ACS	440,854	20.62
2012	ACS	437,639	21.05
2013	ACS	441,313	21.49
2014	ACS	434,196	22.01
2015	ACS	434,378	22.50
2016	ACS	431,078	22.80
2017	ACS	436,317	23.47
2018	ACS	436,285	23.79
2019	ACS	433,766	24.05
Combined		12,127,341	18.09

Table 2: CPS Sample Sizes

Year	Number of Observations	Weighted % Hispanics
1971	21,476	4.58
1972	20,590	4.58
1973	20,537	5.14
1974	20,087	5.29
1975	19,727	5.46
1976	20,800	5.07
1977	24,785	5.12
1978	24,311	5.53
1979	24,162	5.45
1980	28,882	6.23
1981	29,212	6.06
1982	26,313	6.30
1983	26,802	6.49
1984	26,750	6.65
1985	26,948	7.70
1986	26,622	8.16
1987	26,569	8.56
1988	26,947	8.88
1989	25,296	8.93
1990	27,693	9.05
1991	27,886	9.36
1992	27,649	9.54
1993	27,390	9.92
1994	26,307	10.65
1995	25,820	10.41
1996	23,089	11.83
1997	23,475	12.48
1998	23,532	12.94
1999	23,693	12.68
2000	23,993	13.05
2001	37,533	14.77
2002	36,985	15.30
2003	36,393	16.31
2004	35,270	16.84
2005	34,501	17.61
2006	34,107	18.08
2007	33,589	18.93
2008	33,210	19.40
2009	33,212	19.72
2010	33,217	19.35
2011	32,157	20.00
2012	31,144	20.49
2013	30,961	20.84
2014	30,134	21.46
2015	29,462	21.74
2016	27,280	22.31
2017	27,256	22.60
2018	25,944	23.41
2019	25,892	23.73
Combined	1,355,590	12.55

Table 3: Census/ACS Outcome Measures

Outcomes	Number of Responses	Weighted non-Hispanic	Weighted Hispanic
Worked 1+ weeks last year	12,127,341	92.38%	91.93%
Worked FT/FY last year	11,539,723	72.20%	68.50%
Ln Own Wage Earnings	11,048,269	10.41	10.17
Ln Own Wage Earnings if FTFY	7,632,814	10.79	10.42

Table 4: CPS Outcome Measures

Outcomes	Number of Responses	Weighted non-Hispanic	Weighted Hispanic
Worked 1+ weeks last year	1,355,590	93.19%	90.46%
Worked FT/FY last year	1,355,590	76.04%	69.18%
Ln Own Wage Earnings	1,143,130	10.43	9.98
Ln Own Wage Earnings if FTFY	933,796	10.61	10.18

Table 5: Census/ACS Explanatory Variables

Variables		Weighted non-Hispanic	Weighted Hispanic
Education			
	Less than High School	0.22%	3.54%
	Some High School	9.44%	31.66%
	High School	34.90%	34.27%
	Some College	22.92%	17.54%
	College	21.29%	9.08%
	College+	1.04%	0.13%
	Masters	6.70%	2.47%
	Professional	2.28%	0.94%
	Ph.D.	1.22%	0.38%
Potential Experience (Years)		20.12	19.30

Table 6: CPS Explanatory Variables

Variables		Weighted non-Hispanic	Weighted Hispanic
Education			
	Less than High School	0.19%	1.46%
	Some High School	10.63%	35.92%
	High School	34.31%	32.89%
	Some College	23.73%	17.89%
	College	19.29%	8.28%
	College+	5.07%	0.78%
	Masters	4.45%	1.86%
	Professional	1.31%	0.54%
	Ph.D.	1.02%	0.38%
Potential Experience (Years)		19.33	19.02