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# TITLE AND AUTHORS

## TITLE

Title: **The Impact of Hispanic Last Names on Educational and Labor Market Outcomes**

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## ABSTRACT

Do individuals with Hispanic surnames face labor market discrimination? This study analyzes the impact of Hispanic-sounding surnames on wages among inter-ethnic Americans with one White and one Hispanic parent. I find that individuals that likely have Hispanic surnames (i.e., those with a Hispanic father) often earn less, with a notable wage gap favoring those with White-sounding surnames. People born to Hispanic fathers and White mothers receive 0.2 fewer years of education than men born to White fathers and Hispanic mothers. Men born to Hispanic fathers and White mothers are 1 percentage point more likely to be unemployed, and they earn 5 percentage points less than those born to White fathers and Hispanic mothers. I also show that this gap can largely be explained by educational differences. **JEL:** J71; J64; J15; J31; I24; J62

## KEYWORDS

**Keywords:** Discrimination and Prejudice; Wage Gap; Inter-ethnic Families

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## **Data Availability Statement**

The data that support the findings of this study will be openly available to all researchers after the review process. For immediate information regarding the data and/or computer programs used for this study, please contact Hussain Hadah at [hhadah@tulane.edu](mailto:hhadah@tulane.edu).

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# Manuscript Text

## 1 Introduction

A large body of literature provides evidence of substantial earnings gaps across race and ethnicity in the US (Bayer and Charles 2018; Charles and Guryan 2008). Hispanic individuals constitute a large and growing portion of the US population, and as this number increases, it is increasingly crucial to determine whether ethnic discrimination affects their employment prospects, wages, and career advancement. Understanding these labor market outcomes is critical, as they directly affect broader societal issues like assimilation and economic mobility (Chetty et al. 2017; Chetty, Hendren, and Katz 2016; Chetty, Hendren, Kline, Saez, and Turner 2014). These factors serve as key indicators of how successfully Hispanic immigrants can navigate society and ascend the socioeconomic ladder.

In this paper, I answer the following questions. Does having a Hispanic last name affect educational outcomes? Does having a Hispanic last name affect labor market outcomes? I aim to show that comparing Hispanic White individuals to non-Hispanic White individuals might create an artificially higher earnings gap since the two groups differ in many observable characteristics.<sup>1</sup> <sup>2</sup> My analysis focuses on US-born children with foreign-born parent (i.e., inter-ethnic).<sup>3</sup> Others

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1. By identifying as Hispanic, I refer to individuals who self-report their ethnicity as Hispanic on surveys or other data collection instruments.

2. Observable characteristics refer to factors that can be measured and quantified, such as education level, work experience, and immigration status.

3. This study's focus on US-born children with foreign-born parents means the findings may not generalize to Hispanic children with US-born parents, who likely face different socioeconomic

have attempted to compare how native-born White Hispanics fare compared to non-Hispanic Whites and foreign-born Hispanics. Antman, Duncan, and Trejo [2016a](#); Antman, Duncan, and Trejo [2016b](#); Antman, Duncan, and Trejo [2020a](#), [2020b](#), the authors compare the health and educational outcomes of Hispanic Whites to non-Hispanic Whites and native-born Hispanics to foreign-born Hispanics. They find gaps in education and health between Hispanics and Whites. They also find that native-born Hispanics are more likely than their foreign-born counterparts to report poor health. Dávila and Mora ([2008](#)) documents many gaps in labor market outcomes between Hispanics and Whites. They attribute a big part of this gap to differences in education, experience, immigration status, and regional differences. This paper builds on those studies by emphasizing how cultural assimilation and generational status further shape educational and labor market disparities for Hispanics.

Understanding discrimination against Hispanics in labor markets has far-reaching implications that extend beyond individual earnings. Labor market discrimination can create persistent intergenerational disadvantages by limiting economic mobility, reducing access to quality healthcare and education, and constraining residential choices (Bowles and Gintis [2002](#); Chetty et al. [2017](#); Chetty, Hendren, and Katz [2016](#); Chetty, Hendren, Kline, Saez, and Turner [2014](#); Djajić [2003](#)). Additionally, discrimination may foster occupational sorting and segregation, as shown by recent task-based models of racial wage gaps that identify race-specific barriers

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and cultural circumstances. Additionally, the analysis does not account for heterogeneity in immigrant characteristics across different Spanish-speaking countries of origin, such as variations in educational attainment, socioeconomic status, and gender-specific migration patterns, which could influence both parental selection into migration and subsequent child outcomes.



in “Contact” tasks and explain the stagnation of these gaps post-1980 (Hurst, Rubinstein, and Shimizu 2024). These barriers may trap Hispanic families in cycles of lower socioeconomic status, as reduced earnings and employment opportunities limit their ability to invest in their children’s human capital or build wealth through homeownership and savings.<sup>4</sup> While previous research has documented earnings gaps between Hispanics and non-Hispanic Whites, this paper makes several important contributions. First, this paper develops a novel empirical strategy that better isolates the causal effect of Hispanic ethnicity on educational and labor market outcomes by comparing children of inter-ethnic marriages. This approach helps control for typically unobservable family background characteristics that might confound traditional analyses. Second, it provides new evidence on the specific role of Hispanic surnames in driving discrimination, offering insights into how ethnic signals influence both educational attainment and labor market outcomes. Finally, by examining both education and employment outcomes, this study helps illuminate the channels through which ethnic discrimination may perpetuate economic disparities across generations. Furthermore, it extends earlier findings by demonstrating how naming cues can compound structural inequalities and reinforce existing barriers faced by Hispanics.

This study builds upon and improves the traditional Oaxaca-Blinder-Kitagawa decomposition approach often used in labor market discrimination studies (Blinder 1973; Kitagawa 1955; Oaxaca 1973). While these decomposition methods have provided valuable insights into earnings gaps between different groups, includ-

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4. See Bowles and Gintis (2002) for an analysis of the intergenerational transmission of economic status .

ing Hispanics and non-Hispanic Whites (Dávila and Mora 2008), they are limited in their ability to account for unobserved differences between the groups. My approach, by comparing children of inter-ethnic marriages, provides a more closely matched comparison group, allowing me to better isolate the effect of having a Hispanic last name on labor market outcomes.

The methodological improvement in this paper is particularly timely and relevant given the rapidly changing demographics of the United States. The US population is growing increasingly diverse, with significant implications for labor market dynamics and potential discrimination. The proportion of non-Whites has increased by more than 10 percentage points from 13 percent in 1995 to 23 percent in 2019.<sup>5</sup> Native-born White Hispanic men earn 21% less than White men, although a substantial portion of the earnings gap is due to educational differences between Hispanics and Whites (Duncan, Hotz, and Trejo 2006; Duncan and Trejo 2018a, 2018b). Some earnings differences may also be due to discrimination which will have negative consequences. For example, discrimination against Hispanics can lead to reduced job opportunities, lower wages, and hinder assimilation (Bowles and Gintis 2002; Chetty, Hendren, Kline, and Saez 2014; Djajić 2003).<sup>6</sup>

Using this novel approach, I find significant effects of having Hispanic last names on both educational and labor market outcomes. The results show that individuals that likely have a Hispanic last names face substantial disadvantages

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5. The proportion of non-Whites and Hispanics is calculated using the Current Population Survey (CPS).

6. This study focuses on U.S.-born children of inter-ethnic unions, many of whom have at least one foreign-born parent. Assimilation concerns remain relevant because foreign-born parents may pass on cultural norms and language preferences, which can still shape these children's educational and labor market outcomes.

in educational attainment and earnings compared to their counterparts with likely non-Hispanic names. Specifically, individuals that likely have Hispanic last names complete 0.2 years of education less than those with non-Hispanic names, even when controlling for family background. Individuals that likely have Hispanic last names are also 1 percentage point more likely to be unemployed and earn 5 percentage points less than those with non-Hispanic names. These findings suggest that ethnic discrimination continues to play a role in shaping economic opportunities for Hispanics in the United States, highlighting the need for targeted policies to address these persistent disparities.

Identifying discrimination is difficult because of factors that affect labor market outcomes that are unobservable to economists—such as unobserved skills and separating it from prejudice and stereotypes. One strategy used by researchers is audit or resume studies. Bertrand and Mullainathan (2004) conducted an audit study where identical resumes were sent to employers with White and Black-sounding names. This approach, however, has its drawbacks. Audit studies only observe callbacks, not wages.

This study uses a method developed by Rubinstein and Brenner (2014). I compare children from inter-ethnic marriages. More precisely, I compare children of Hispanic fathers and White mothers (henceforth HW) to children of White fathers and Hispanic mothers (henceforth WH). This approach stems from the fact that there is a strong selection among many characteristics, and thus, marriages are not random. Couples match on several observable characteristics like income, schooling, socio-economic background, etc. (Averett and Korenman 1996; Averett,

Sikora, and Argys 2008).<sup>7</sup> Children of HW and WH marriages have more similar observable characteristics than children of endogamous/homogamous marriages—i.e., White fathers-White mothers and Hispanic fathers-Hispanic mothers. Moreover, children from a Hispanic father and White mother household will have a Hispanic last name from their fathers, enabling the investigation of how ethnic signals, such as having a Hispanic last name, affect annual log earnings.

In addition, when analyzing the effect of having a Hispanic last name on educational outcomes, I provide separate analysis of men and women. Separating the results for men and women is motivated by evidence that gender and ethnic discrimination operate through distinct mechanisms. As Bertrand (2020) discusses, women's labor market outcomes are shaped by persistent gender norms and stereotypes, particularly around motherhood and caregiving. Antecol and Bedard (2002) found that young Mexican women earned 9.5% less than young white women in 1994, with differences in education appearing to be the most important explanation for this gap. This contrasts with findings for black women, where differences in labor force attachment were the key driver of wage disparities. The way discrimination manifests can also evolve differently by gender over time—Goldin and Shim (2004) document how women's professional identity and career continuity have become increasingly important factors in labor market outcomes, while Darity Jr, Hamilton, and Stewart (2015) argue that a stratification economics approach helps reveal how group-based hierarchies are maintained through both discriminatory practices and intergenerational resource transfers. Therefore, dis-

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7. For more on assortative mating see (Becker 1973, 1974, 1993; Browning, Chiappori, and Lechene 2006; Chiappori, Orefice, and Quintana-Domeque 2012)

aggregating the results by gender provides important insights into how the intersection of ethnic and gender discrimination shapes educational and economic opportunities.

The main identifying assumption of my empirical strategy depends on the assumption that people born to HW parents are similar to their WH peer in all observable—and unobservable—aspects and characteristics that are important in the labor market. Consequently, the only difference between the two groups is the variation in which group is more likely to have a Hispanic sounding last name. Children from mixed ethnic backgrounds may appear physically similar to those from single ethnicity backgrounds, but the influence of family dynamics and upbringing, crucial in developing skills and personal characteristics, varies with the pattern of mixed ethnic marriages. Particularly in a society where Hispanic ancestry could be perceived negatively, it raises the question of the type of White women would choose Hispanic men. Furthermore, even if such unions were formed randomly, children from White-Hispanic homes might benefit from more favorable family conditions than those from Hispanic-White homes, considering Whites generally have stronger socio-economic backgrounds than Hispanics. These factors introduce doubts regarding whether children from Hispanic-White families receive comparable familial support and influences, either genetically or environmentally, as those from White-Hispanic families.

Previous studies have also used names as a proxy for race and ethnicity (Bertrand and Mullainathan [2004](#); Fryer Jr and Levitt [2004](#); Rubinstein and Brenner [2014](#)). Fryer Jr and Levitt ([2004](#)) point out that names can be a predictor of a person's

race. Specifically, they provide a rising pattern among Blacks having different names than Whites. They did, however, find that having a Black name, after controlling for the home environment at birth, does not affect their labor market outcomes. Rubinstein and Brenner (2014) compared the children of mixed marriages between Sephardic and Ashkenazi Jews in Israel.<sup>8</sup> They found that workers with Sephardic last names earn substantially less than those with Ashkenazi last names. Bertrand and Mullainathan (2004) conducted an audit study by sending employers identical resumes that differ in the ethnic and racial signal of a name (Black sounding name versus a White sounding one). They found that resumes with Black-sounding names received substantially fewer callbacks than their White counterparts. Furthermore, these early innovations in leveraging name-based identification highlight the importance of understanding how such signals can capture both conscious and unconscious bias, thereby situating this study within a broader framework of research on race, names, and economic outcomes.

Moreover, audit studies in education economics investigated the effect of racial and ethnic signal on access to education. Bergman and McFarlin Jr (2018) found that students with Hispanic sounding names received 2 percentage points fewer responses from schools than students with White sounding names. Janssen et al. (2022) found that guidance counselors restricted Asian students from advanced opportunities. Gaddis et al. (2024) found significant discrimination in interactions with principals against Hispanic and Chinese American families. Finally,

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8. Ashkenazi and Sephardic are two distinct Jewish ethnic groups.

Bourabain, Verhaeghe, and Stevens (2023) found more evidence of discrimination in access to education against students with underprivileged backgrounds in the Flemish education system. Discrimination can affect educational attainment through multiple channels: restricted access to advanced coursework, biased academic counseling, limited encouragement to pursue higher education, and subtle institutional barriers that may cause Hispanic students to feel unwelcome or unsupported in educational settings. While Hispanic college enrollment has increased substantially in recent decades, discrimination within educational institutions may still impede degree completion through these various mechanisms. This paper contributes to this literature by providing evidence that discrimination in access to education could lead to lower earnings for Hispanics, and it further shows how parental background and marriage market selection can importantly shape these outcomes in ways not previously explored by earlier studies.

The rest of the paper is organized as follows. In Section 2, I describe the data used in this paper. In Section 3, I present the empirical strategy. In Section 5, I present the results from the estimation of the two specifications. Finally, in Section 6, I conclude.

## 2 Data

I use three datasets: the Integrated Public Use Microdata Series (IPUMS) Current Population Survey (CPS), CPS' Annual Social and Economic (ASEC) supplement, and CPS' outgoing rotation (Flood et al. 2020), and the 1960 to 2000 US

censuses ([Ruggles et al. 2020](#)).

I use the CPS data set to study the effect of having a Hispanic last name on a person's labor market outcomes. I take advantage of the fact that the CPS asks parents' place of birth, ethnicity, and race. The data spans the period between 1994—the earliest sample to ask about a parent's place of birth—to 2019. Moreover, since the CPS does not provide data on parents' characteristics, essential to determine the family background, I use the census to construct synthetic parents. The census offers a larger sample of potential parents. Similar to the CPS, the 1960 to 2000 censuses ask about the person's place of birth and the individual's race and ethnicity. I employ this information to construct "synthetic parents" using a method developed by Rubinstein and Brenner ([2014](#)). I construct the synthetic parents by linking husbands and wives in the census data to each other. I assume that parents have children between the ages of 25 and 40. I then link these synthetic parents using the birth year of child, and parents' places of birth to the year of birth of the "children" and the parents' places of birth in the CPS sample.

For my main analysis, I use different dependent variables. I construct different educational variables: years of education, whether the person has a high school diploma, whether the person has an associate degree, and whether the person has a bachelor degree. For labor market outcomes, I construct unemployment rate variable using the main CPS, log annual earnings using the ASEC, and log weekly earnings using the outgoing rotation. The unemployment indicator is a binary variable that equals 1 if someone is unemployed and 0 if employed, based on civilian labor force status. Log annual earnings is the log of total personal income



from the CPS' ASEC supplement. Log weekly earnings is the natural logarithm of weekly earnings for hourly workers from the outgoing rotation CPS supplement. I use the following controls: age, hours worked, and state-year fixed effects. I also include the parents' characteristics from the synthetic parents data as controls in alternative specifications. These controls include income and education of the synthetic parents.

## 2.1 Children of the four parental types

I use the CPS for my primary analysis of the effect of having a Hispanic last name on earnings. I restrict my sample to Whites, United States-born citizens aged 25 to 40 and born between 1960 to 2000. Taking advantage of data on parents' place of birth, I divide the sample into four groups depending on their parent's ethnicity. Mothers or fathers are Hispanic if they were born in a Spanish-speaking country and Puerto Rico, and White if they were born in the United States.<sup>9</sup> Therefore, an observation can be the product of four types of parents:

1. White father and White mother (hereafter WW)
2. White father and Hispanic mother (hereafter WH)
3. Hispanic father and White mother (hereafter HW)
4. Hispanic father and Hispanic mother (hereafter HH).

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9. The list of Spanish Speaking countries include: Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Equatorial Guinea, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Spain, Uruguay, Venezuela.

Moreover, my sample includes inter-ethnic children with Hispanic ancestry aged 25 to 40 that are citizens. I do not restrict the sample to the self-reported Hispanic identity and keep both Hispanic White and non-Hispanic White children because ethnic attrition could lead to biases estimates when measuring gaps as shown by Hadah (2024).<sup>10 11</sup> To maintain analytical clarity, I restricted the sample to Hispanic and non-Hispanic White individuals, excluding other racial groups who also identify as Hispanic, as this allows for a more focused examination of Hispanic ancestry effects without introducing confounding racial factors.

The distribution of the four types of children is presented in Table 1. The majority of the sample (96%) is WW children. The second biggest group is HH, which constitutes 3% of the sample. Inter-ethnic children, WH and HW, make up 1.35% of the sample with 90,325 observations. Even though WH and HW are only 1.35% of the sample, I have plenty of observations to carry out an analysis. The summary statistics for the children of the four types of marriages are presented in Table 2. Children of WW marriages (Column 1) do better on every measure while children of HH parents (Column 4) do worse than other children on every measure. Children of WH (Column 2) and HW (Column 3) marriages fall in between WW and HH children. The rates of self-reported Hispanic identity vary significantly across groups. Among children of WW marriages (Column 1), only 4% of men and 5% of women identify as Hispanic. This proportion increases substantially for chil-

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10. A person self-report Hispanic identity by answering the following Census question: “Is this person Spanish/Hispanic/Latino?”

11. Ethnic attrition happens when a U.S.-born descendant of a Hispanic immigrant fails to self-identify as Hispanic. For more discussion of this phenomenon see Antman, Duncan, and Trejo (2016b) and Antman, Duncan, and Trejo (2020b)

dren of inter-ethnic marriages: in WH families (Column 2), 74% of men and 78% of women identify as Hispanic, while in HW families (Column 3), the rates are 83% for men and 81% for women. Children of HH marriages (Column 4) show the highest rates of Hispanic identification, with 96% of men and 97% of women self-reporting as Hispanic.<sup>12</sup>

## 2.2 Synthetic parents

Using the 1960 to 2000 censuses, I constructed a data set of synthetic parents. The sample includes married White men and women. Even though the census asks a person whether they are Hispanic or not, I took advantage of the questions on place of birth to create a proxy for ethnicity. I consider a Hispanic person as White and born in a Spanish-speaking country. Consequently, Whites in the sample are people who are White and native-born. Using the information provided in the census, I can link husbands and wives with each other. I assume that parents have children between the ages of 25 and 40. Therefore, my sample consists of married White men and women with children that were born in the 1920 to 1975 cohorts<sup>13</sup>.

For example, consider someone who was 35 years old in 1999, meaning they were born in 1964. If this person's mother was born in Mexico and their father was born in the United States, their "synthetic parents" would be identified using the 1970 Census, when this person was 6 years old. These "synthetic parents" are

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12. The ethnic attrition rates are similar to those found in Antman, Duncan, and Trejo (2016b), Antman, Duncan, and Trejo (2020b), and Hadah (2024).

13. The construction of "synthetic parents" follows the method used by Rubinstein and Brenner (2014).

created by matching the characteristics of Mexican-American couples who had a 6-year-old child in 1970. The “synthetic mother” would have the average education level, income, and other socioeconomic characteristics of Mexican-born women who were married to U.S.-born men and had children around 1964, when they were between 20 and 35 years old (meaning they were born between 1929-1944). Similarly, the “synthetic father” would have the average characteristics of U.S.-born men who were married to Mexican-born women and had children in that same year. This method preserves the demographic composition of parents while assigning them historically accurate socioeconomic characteristics based on their origins and marriage patterns. I show the distribution of the four types of couples in Table 3. White husbands and White wives (WW) make up the majority of couples in the sample, 96% (5,141,737 couples). Hispanic husbands and wives (HH) are the second largest group making up 2% (119,749 couples) of all couples. White husbands and Hispanic wives (WH) couples are less 1% (33,097 couples) of the sample and Hispanic husbands and White wives (HW) are also 1% (37,847 couples). I present the summary statistics of the parents in Table 4.

### 3 Empirical Approach

Let  $Y_{ist}$  be the outcome of interest for person  $i$  in state  $s$  at time  $t$ .  $HW_{ist}$  is an indicator variables for the type of parents of person  $i$  has.  $X_{ist}$  is a vector of controls that includes age and numbers of hours worked,  $\gamma_{st}$  are state-year fixed

effects (FE), and  $\phi_{ist}$  represents the error term.<sup>14</sup> The equation for this strategy is written as follows and the sample is restricted to I restrict the sample to WH and HW groups:

$$Y_{ist} = \beta_1 HW_{ist} + X_{ist}\pi + \gamma_{st} + \phi_{ist} \quad (1)$$

$\beta_1$  is the coefficient of interest in this specification.  $\beta_1$  represents the gaps in outcomes between children of inter-ethnic marriages who likely have a Spanish-sounding last name versus a White last name. If  $\beta_1 > 0$ , then people with a Hispanic last name have better outcomes than people with a White last name. If  $\beta_1 < 0$ , then people with a Hispanic last name have worse outcomes than people with a White last name.

Moreover, by comparing interethnic children, I can control for many unobservable family characteristics that might affect labor market outcomes. These families are likely to be more similar to each other than to families with two Hispanic or two non-Hispanic White parents. This approach allows me to isolate the effect of having a Hispanic last name on labor market outcomes, providing a more accurate estimate of the impact. The difference in means between Hispanics and non-Hispanic Whites could result from discrimination. It can also be caused by differences in innate abilities, skills, and parental investments. WH children will have a non-Hispanic last name, while HW children will have a Hispanic last name. This is a method developed by Rubinstein and Brenner (2014). This is an improvement over traditional Oaxaca-Blinder-Kitagawa decomposition methods,

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14. I also include parental characteristics of ‘synthetic’ parents as controls in alternative specifications. These controls include income and education of ‘synthetic’ parents.

which are limited in their ability to account for unobserved differences between groups by providing a more suitable comparison group to measure discrimination (Blinder 1973; Kitagawa 1955; Oaxaca 1973).

The central assumption underpinning my estimation strategy is based on the hypothesis that individuals born to a HW person exhibits comparable characteristics to their peers of WH descent, especially in areas vital to the labor market. This assumption includes similarities in educational background, skill sets, and work experiences that are significant determinants in employment opportunities, salary levels, and career advancement.

Two primary reasons underscore that this assumption. First, there is a significant selection in the marriage market. Since belonging to the Hispanic out-group comes with a negative penalty in society, one might wonder who are the White women that would be willing to give their kids a Hispanic last-name that would potentially negatively influence their futures. Second, fathers and mothers influence human capital accumulation differently (Kimball, Sahm, and Shapiro 2009; Magruder 2010). If marriage was random, then WH households might be a better environment for children than HA. Using the CPS and the US Census, I will evaluate these empirical concerns.

The previous two threats to identification could be addressed by the selection of partners among inter-ethnic couples. The average White person exhibits better observable characteristics than the average Hispanic. Consequently, if marriages were random, the White husband in an WH marriage would have better traits than wife, and the White wife in the HW marriage would have the stronger traits.

Random matching in marriages would pose a challenge to the identification strategy. This is because parents are not perfect substitutes in the inter-generational transmission of human capital. Consequently, differences in parental background could significantly affect children's labor market outcomes, potentially invalidating the comparison between HW and WH children.

Marriages, however, are not random. There is large body of empirical and theoretical work that indicates that marriages exhibits strong selection, or what is referred to as assortative matching, on traits (Averett and Korenman 1996; Averett, Sikora, and Argys 2008; Becker 1973, 1974, 1993; Browning, Chiappori, and Lechene 2006; Chiappori, Orefice, and Quintana-Domeque 2012). Also, Duncan and Trejo (2011) shows a similar pattern of assortative matching among Mexicans in the United States. These papers suggest that inter-ethnic WH and HW marriages will, on average, consist of partners sharing similar characteristics. Consequently, the literature would predict that both WH and HW parents will be similar in all aspects that are relevant to a child's labor market outcomes. I will go over the empirical evidence from the data to show that this is actually the case.

Another threat to identification could arise from measurement error in using the place of birth of parents in the CPS data as a proxy for a parent's ethnicity and last name. The CPS only asks about the place of birth of parents and not their ethnic or racial identity. Therefore, it is possible that a native-born father could be a second-generation or later immigrant from a Spanish-speaking country. However, this scenario is highly improbable. Most Hispanics from 1960 to 2000 were first-generation immigrants, and the number of second-generation or later

was very small. This is supported by data from the 1960 to 2000 censuses (see Table 5). Only 3% of native-born Americans identified as Hispanic, indicating the small number of second-generation or later Hispanic immigrants in the sample. Therefore, the probability that an inter-ethnic child with a native-born father that is also a second generation+ Hispanic immigrant is very small.

## 4 From the Data: The Differences Between HW and WH Couples

In this section, I explore the empirical data to affirm the validity of my empirical strategy, as presented in Table 4, which details the educational and economic profiles of parents from four different ethnic groupings—White White (WW), White Hispanic (WH), Hispanic White (HW), and Hispanic Hispanic (HH). This table meticulously lays out the average outcomes and discrepancies for each group, highlighting the impact of inter-ethnic marriages on children’s prospects. These results show that there is selection in marriage, and that the differences between children born to HW and children born to WH are less severe than those between the other two groups. Consequently, comparing WH and HW children to each other to analyze discrimination against Hispanics in the labor market provides a better comparison since any gaps that emerge between these otherwise similar groups are more likely to be attributable to discrimination rather than underlying differences in family background or socioeconomic status.

Using the “synthetic” parents sample that I constructed using the Census data,



I examine the family background of the different type of children. WW couples have higher education, 12.58 years for husbands and 12.36 for wives. As a household, WW couples have 24.95 years of schooling. Husbands in HH marriages have 8.64 years of education, while women have 8.49 years of schooling. As a household, HH couples have 17.13 years of education. As predicted, the inter-ethnic couples exhibit matching in which partners marry people similar to them. WH husbands have 11.82 years of education, while wives have an average of 10.71 years. WH household attained a total of 22.68 years of schooling in total. HW husbands have 10.33 years of education, while wives have an average of 11.01 years. HW household attained a total of 21.50 years of schooling in total. Both Hispanic men and women in inter-ethnic couples marry white spouses that are, on average, more educated than the average HH couple. More importantly for human capital accumulation, the mother in the HW marriages—the children likely have a Spanish sounding last-name—are more educated than their WH peers. Since mothers could be more important in the a child's human capital accumulation and education, this would suggest that a child with a Hispanic last-name should complete more years of education (Gould, Simhon, and Weinberg [2020](#)).

The data reveals that WW couples have the highest total household education, amounting to 24.95 years, significantly surpassing the 17.69 years of HH couples. This stark contrast underlines the substantial educational divide between these groups. Inter-ethnic couples, WH and HW, display intermediate educational achievements, with WH households totaling 22.68 years of education and HW households slightly behind at 21.50 years. Notably, HW husbands are less

educated (10.33 years) compared to WH husbands (11.82 years), yet HW wives surpass their WH counterparts with 11.01 years of education, suggesting a balance in educational attainment within these marriages. This factor is particularly pertinent for children with Hispanic last names who might derive greater benefits from their mother's higher education.

In terms of labor market performance, WW households boast the highest log total family income at 10.75, while HH households fall at the lower end with 10.42. Among inter-ethnic couples, WH households have a slightly higher total income of 10.65 compared to HW households at 10.60. Notably, the difference in husbands' log hourly earnings between HW and WH is marginal, indicating HW men earn 4% less than their WH counterparts. Furthermore, HW women actually surpass WH women in earnings, with HW wives earning 1.75 and WH wives earning 1.73 in log hourly earnings, respectively. This reversal in the typical earning pattern not only speaks to the closing economic disparities between these groups but also implies potentially greater economic contributions from HW women to their families, which could be advantageous for children and to the developments of traits that are important in the labor market.

The table also sheds light on fertility trends, noting that WW couples have less children than HH couples, reflecting broader socio-economic and cultural patterns. The difference in fertility between HW and WH couples is positive but significantly lower than the difference in fertility between HH and WW couples.

The evidence presented in this section supports a robust empirical strategy, revealing significant selection in marriage and distinctive educational and income

patterns among different types of families. Inter-ethnic couples exhibit comparable levels of education and earnings. This suggests that the children of HW families are likely positioned for better educational outcomes, critical in understanding discrimination in the labor market. Notably, the disparities between HW and WH families are considerably less pronounced than those between other groups, emphasizing the importance of comparing these children directly. Such comparisons shed light on the nuanced dynamics of ethnicity, education, and economic outcomes in inter-ethnic marriages. <sup>15</sup>

Despite higher levels of education and income among Hispanic White (HW) mothers compared to White Hispanic (WH) mothers, suggesting an expectation of greater educational attainment for HW children, data reveals a discrepancy. Specifically, HW children complete, on average, 0.4 fewer years of education compared to their WH peers (refer to Table 2). This gap may suggest potential discrimination or barriers in educational access for HW children.

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15. I present in Tables A.1 and A.2 the summary statistics which detail the educational and economic profiles of parents from four different ethnic groupings—White White (WW), White Hispanic (WH), Hispanic White (HW), and Hispanic Hispanic (HH) on sub-samples of Hispanics of Mexican and non-Mexican ancestries. I find similar results that describe a selection into inter-ethnic marriages among the two groups.

## 5 Results

### 5.1 The Effect of Having a Hispanic Last Name on Educational Outcomes

I provide the results of the estimation of equation 1 in Table 6. I estimate the mean educational outcomes of White, U.S.-born Hispanics ages 25-40. I also restrict the sample to children of HW and WH parents. The omitted group is children of WH parents. Column 1 in Table 6 is the difference in total years of education between HW children and their WH peers. Column 2 is the difference in the probability of having been a high school dropout. Column 3 is the difference in the probability of having an associate degree. Column 4 is the difference in the probability of having a bachelor's degree. All regressions include controls for age, parental education and income, and state-year fixed effects.

Overall, there is a significant gap in total years of education between HW and WH children. HW children receive 0.2 years of education less than WH children. The gap between HW and WH women is larger than the gap between HW and WH men. Women with a Hispanic last name receive 0.25 years of education less than WH women. The gap between HW and WH men is equal to 0.16 years.

Even though there is a significant, albeit small, gap in total years of education between HW and WH children, there is no significant gap in the probability of being a high school dropout. The gap between HW and WH high school dropouts is equal to a statistically insignificant 1 percentage point. The same is true for HW women (2 percentage points) and men (0 percentage points).

However, there is a notable difference when it comes to higher education outcomes. HW children are 2 percentage points less likely to earn an associate degree and 3 percentage points less likely to earn a bachelor's degree compared to their WH peers. HW children are 2 percentage points less likely to earn an associate degree compared to their WH peers, representing a 13.3% reduction relative to the WH associate degree rate of 15%. HW children are 3 percentage points less likely to earn a bachelor's degree compared to their WH peers, which is a 13% reduction relative to the WH bachelor's degree rate of 23%. These gaps are slightly larger for HW women, who are 3 percentage points less likely to earn an associate degree and 4 percentage points less likely to earn a bachelor's degree. For HW men, the gap is 2 percentage points for an associate degree and statistically insignificant for a bachelor's degree.

These results suggest that while the overall educational attainment gap between HW and WH children is small in terms of years of education, the disparities become more pronounced when considering higher education milestones, particularly for HW women. However, given the fact that HWs have more educated mothers than WHs, we would expect them to have higher levels of educational attainment (Gould, Simhon, and Weinberg 2020; Kimball, Sahm, and Shapiro 2009). This could indicate potential barriers or discrimination in access to higher education for HW children, particularly.

## 5.2 The Effect of Having a Hispanic Last Name on Labor Market Outcomes

I provide the results to the estimation of equation 1 in Tables 7 and 8 on unemployment and log earnings. I estimate the mean unemployment of White, Native-born, Hispanics men aged 25-40. I estimate the mean wages of White, U.S.-born, Hispanic men aged 25-40 who are employed FTFY as waged and salaried workers. I also restrict the sample to children of HW and WH (omitted) parents. Column 1 in Table 8 is the average crude earnings gap in log annual earnings between HW workers and their WH peers. In the next 4 columns, I introduce the results with controls for hours worked, state FE, year FE, age FE, Education FE, and parental background.

In addition to examining earnings, I also analyzed the effect of having a Hispanic last name on unemployment rates. Table 7 presents the results of this analysis. Column 1 shows that individuals with Hispanic last names (HW) have a 1 percentage point higher unemployment rate compared to those with White last names. This gap persists even after controlling for age, state fixed effects, year fixed effects, and state-year fixed effects (Column 2), though the significance level drops. When education is included as a control (Column 3), the gap remains at 1 percentage point. Finally, after controlling for parental background (Column 4), the 1 percentage point difference in unemployment rates becomes statistically insignificant. These results suggest that while there is an initial unemployment gap associated with having a Hispanic last name, much of this difference can be explained by factors such as education and parental background. The mean un-

employment rate for individuals with Hispanic last names (HW) is 7% across all specifications.

Overall, the crude gap between HW and WH workers is equal to 5 percentage points (Table 8 column 1). An inter-ethnic with a Hispanic last name earns 5 percentage points less than an inter-ethnic with a White last name. Even after controlling for hours worked, and including state, year, and age FEs in the estimation, the gap stays at 5 percentage points. This gap, however, could be entirely explained by educational differences. An inter-ethnic with a Hispanic last name earns 1 percentage points less than an inter-ethnic with a White last name, but the result is statistically insignificant.

### 5.3 Sensitivity Analysis

Since Hispanics are a very heterogeneous group, I conduct a sensitivity analysis on different samples of Hispanics. To increase the sample size of my analysis I estimate equation 1 using weekly earnings as a dependent variable. Weekly earnings are available in all the monthly CPS surveys and not just the March Supplement. I present the results to these estimations in tables A.4, A.5, A.6, and A.7.

First, in Table A.3, I present the results of estimating equation 1 using weekly earnings as the dependent variable for the full sample. Similar to the previous analysis, I find that a person with a Hispanic last name earns 4 percentage points less than a person without a Hispanic last name. This gap could be explained by educational differences. Second, in Table A.6, I present the results for a sample of Mexican Hispanics. I find that among individuals of Mexican origin, those with

that likely have Hispanic surnames earn 3 percentage points less than those with a likely native-sounding surnames. This gap becomes an imprecise zero after controlling for education and parental background. Third, in Table [A.7](#), I present the results for a sample of non-Mexican Hispanics. The gap between non-Mexicans that likely have a Hispanic-sounding last names and those that likely have a native-sounding last names is similarly explained by educational differences. I find that a non-Mexican individual that likely has a Hispanic-sounding last name earns 3 percentage points less than a non-Mexican with a native-sounding last name. This gap also becomes an imprecise zero after controlling for education and parental background.

I also present the results of the estimation of equation [1](#) using log annual earnings as the dependent variable but with occupation fixed effects instead of education fixed effects. I present the results of this estimation in Table [A.9](#). I find that the gap between people with a likely Hispanic-sounding last names and those with a likely native-sounding last names is explained by differences in occupation, similar to my findings with educational controls. I find that a person with a likely Hispanic-sounding last name earns 5 percentage points less than a person with a likely native-sounding last name. This gap becomes an imprecise zero after controlling for occupation.



## 6 Conclusion

As the Hispanic population grows in the United States, studying discrimination against this group becomes increasingly important. In this paper, I examine discrimination against Hispanics in the labor market. More specifically, I examine the impact of Hispanic last names and Hispanic identification on annual log earnings.

I compare the children of inter-ethnic marriages to study the labor and educational markets impact of having a Hispanic last name. I find that inter-ethnic people with a likely Spanish-sounding last names receive 0.2 years of education less than inter-ethnic counterparts that likely have a native-sounding last name, representing a 1.4% reduction in total years of education. This gap is larger for women (0.25 years, or 1.8%) than for men (0.16 years, or 1.2%). When I compare the labor market outcomes of HW and WH children, which captures the effect of having a Hispanic last name, HW children are 1 percentage point more likely to be unemployed than WH children, representing a 14.3% increase from the mean unemployment rate. In terms of earnings, HW children earn 5 percentage points (4.9%) less than WH children. Thus, by comparing inter-ethnic children, a person with a Hispanic last name makes 5 percentage points less than someone with a White last name. When I control for education, the last name effect decreases to a statistically insignificant 1 percentage point earnings gap.

The findings reveal gaps that could be attributed to discrimination against individuals with Hispanic surnames, with effects varying across educational levels and gender. While the impact on total years of education appears modest (1.4% re-

duction), the more substantial gaps in higher education attainment—particularly the 13% reduction in bachelor’s degree completion and 13.3% reduction in associate degree attainment—suggest that discrimination may intensify at crucial educational transition points. This pattern is especially pronounced for women with Hispanic surnames, who face larger penalties in both total education (1.8% reduction versus 1.2% for men) and degree completion (14.8% reduction in bachelor’s degree attainment).

There is a large literature in education economics that shows disparities in access to education, which this paper contributes to. In an audit study of charter and traditional public schools, Bergman and McFarlin Jr (2018) and Gaddis et al. (2024) find that students with Hispanic names—compared to students that are presumed White—are less likely to get a response to inquiries from schools. This could be an indication that people with a likely Hispanic sounding names could end up lower access to education, including high value-added schools. Therefore, the earnings gap between people with a likely Hispanic sounding last names and those with native sounding last names could be due to differences in access to education that are in turn due to discrimination. This paper provides further evidence, using observational data, that discrimination in access to education could lead to lower earnings for Hispanics.

In the labor market, the 14.3% higher unemployment rate and 4.9% earnings penalty for those with Hispanic surnames indicate persistent discrimination even among individuals who share similar family backgrounds. Putting the results in context, (Trejo 1997) find an earning gap between US-born Hispanics and US-born

whites that is equal to 30.7 percentage points. My findings could be an indication that out of the 30.7 percentage points gap, at least 16% of it could be attributed to discrimination against Hispanics. However, the fact that the earnings gap becomes statistically insignificant after controlling for education suggests that much of the labor market discrimination operates through educational channels rather than direct wage discrimination. These findings leave several important questions unanswered.

While the earnings gap between children of inter-ethnic parents with and without a Hispanic last name disappears when controlling for education, it does not necessarily indicate the absence of discrimination. Education itself can be influenced by bias, potentially resulting in divergent outcomes (Bergman and McFarlin Jr 2018; Gaddis et al. 2024). This is especially the case when parental characteristics indicate that people with a likely Hispanic-sounding last-names should in theory complete more years of education—since mothers of inter-ethnic children with a Hispanic last-names have more years of education and earn more. While I observe where discrimination manifests (particularly in higher education access), my analysis cannot identify the specific mechanisms—such as teacher bias, institutional barriers, or social networks—through which surname-based discrimination operates. Consequently, further research is needed to comprehensively understand the earnings gaps between Hispanics and Whites.

## References for Manuscript

- Antecol, Heather, and Kelly Bedard. 2002. "The relative earnings of young Mexican, black, and white women." *ILR Review* 56 (1): 122–135.
- Antman, F., B. Duncan, and S. J. Trejo. 2016a. "Ethnic Attrition and the Observed Health of Later Generation Mexican Americans." *Am Econ Rev* 106.
- Antman, Francisca, Brian Duncan, and Stephen J. Trejo. 2016b. "Ethnic Attrition and the Observed Health of Later-Generation Mexican Americans." *The American Economic Review* 106 (5): 467–471.
- Antman, Francisca M, Brian Duncan, and Stephen J Trejo. 2020a. "Ethnic attrition, assimilation, and the measured health outcomes of Mexican Americans." *Journal of Population Economics*, 1–24.
- . 2020b. "Ethnic Attrition, Assimilation, and the Measured Health Outcomes of Mexican Americans." *Journal of Population Economics* (Heidelberg, Netherlands) 33, no. 4 (October): 1499–1522. <https://doi.org/https://doi-org.ezproxy.lib.uh.edu/10.1007/s00148-020-00772-8>.
- Averett, Susan, and Sanders Korenman. 1996. "The Economic Reality of the Beauty Myth." *The Journal of Human Resources* 31 (2): 304–330. <https://doi.org/10.2307/146065>.
- Averett, Susan L., Asia Sikora, and Laura M. Argys. 2008. "For Better or Worse: Relationship Status and Body Mass Index." *Economics and Human Biology* 6, no. 3 (December): 330–349. <https://doi.org/10.1016/j.ehb.2008.07.003>.
- Bayer, Patrick, and Kerwin Kofi Charles. 2018. "Divergent paths: A new perspective on earnings differences between black and white men since 1940." *The Quarterly Journal of Economics* 133 (3): 1459–1501.
- Becker, Gary S. 1973. "A Theory of Marriage: Part I." *Journal of Political Economy* 81, no. 4 (July): 813–846. <https://doi.org/10.1086/260084>.
- . 1974. "A Theory of Marriage: Part II." *Journal of Political Economy* 82, no. 2, Part 2 (March): S11–S26. <https://doi.org/10.1086/260287>.
- . 1993. *A Treatise on the Family*. Cambridge, UNITED STATES: Harvard University Press.
- Bergman, Peter, and Isaac McFarlin Jr. 2018. *Education for all? A nationwide audit study of school choice*. Technical report. National Bureau of Economic Research.

- Bertrand, Marianne. 2020. "Gender in the twenty-first century." In *AEA Papers and proceedings*, 110:1–24. American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203.
- Bertrand, Marianne, and Sendhil Mullainathan. 2004. "Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination." *American economic review* 94 (4): 991–1013.
- Blinder, Alan S. 1973. "Wage discrimination: reduced form and structural estimates." *Journal of Human resources*, 436–455.
- Bourabain, Dounia, Pieter-Paul Verhaeghe, and Peter AJ Stevens. 2023. "School of choice or schools' choice? Intersectional correspondence testing on ethnic and class discrimination in the enrolment procedure to Flemish kindergarten." *Race Ethnicity and Education* 26 (2): 184–204.
- Bowles, Samuel, and Herbert Gintis. 2002. "The inheritance of inequality." *Journal of economic Perspectives* 16 (3): 3–30.
- Browning, Martin, Pierre-André Chiappori, and Valérie Lechene. 2006. "Collective and Unitary Models: A Clarification." *Review of economics of the household* (Boston) 4 (1): 5–14. <https://doi.org/10.1007/s11150-005-6694-2>.
- Charles, Kerwin Kofi, and Jonathan Guryan. 2008. "Prejudice and wages: an empirical assessment of Becker's The Economics of Discrimination." *Journal of political economy* 116 (5): 773–809.
- Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang. 2017. "The Fading American Dream: Trends in Absolute Income Mobility since 1940." *Science* 356, no. 6336 (April): 398–406. <https://doi.org/10.1126/science.aal4617>.
- Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. 2016. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." *American Economic Review* 106, no. 4 (April): 855–902. <https://doi.org/10.1257/aer.20150572>.
- Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. 2014. "Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States \*." *The Quarterly Journal of Economics* 129, no. 4 (November): 1553–1623. <https://doi.org/10.1093/qje/qju022>.
- Chetty, Raj, Nathaniel Hendren, Patrick Kline, Emmanuel Saez, and Nicholas Turner. 2014. "Is the United States Still a Land of Opportunity? Recent Trends

- in Intergenerational Mobility." *American Economic Review* 104, no. 5 (May): 141–147. <https://doi.org/10.1257/aer.104.5.141>.
- Chiappori, Pierre-André, Sonia Oreffice, and Climent Quintana-Domeque. 2012. "Fatter Attraction: Anthropometric and Socioeconomic Matching on the Marriage Market." *Journal of Political Economy* 120, no. 4 (August): 659–695. <https://doi.org/10.1086/667941>.
- Darity Jr, William A, Darrick Hamilton, and James B Stewart. 2015. "A tour de force in understanding intergroup inequality: An introduction to stratification economics." *The Review of Black Political Economy* 42 (1-2): 1–6.
- Dávila, Alberto, and Marie T. Mora. 2008. "Changes in the Relative Earnings Gap Between Natives and Immigrants Along the U.s.-Mexico Border\*." *Journal of Regional Science* 48 (3): 525–545. <https://doi.org/10.1111/j.1467-9787.2008.00562.x>.
- Djajić, Slobodan. 2003. "Assimilation of immigrants: Implications for human capital accumulation of the second generation." *Journal of Population Economics* 16:831–845.
- Duncan, B., and S. J. Trejo. 2011. "Intermarriage and the Intergenerational Transmission of Ethnic Identity and Human Capital for Mexican Americans." *J Labor Econ* 29.
- Duncan, Brian, V Joseph Hotz, and Stephen J Trejo. 2006. "Hispanics in the US labor market." *Hispanics and the Future of America*, 228–290.
- Duncan, Brian, and Stephen J Trejo. 2018a. "Identifying the later-generation descendants of US immigrants: Issues arising from selective ethnic attrition." *The ANNALS of the American Academy of Political and Social Science* 677 (1): 131–138.
- . 2018b. *Socioeconomic integration of US immigrant groups over the long term: the second generation and beyond*. Technical report. National Bureau of Economic Research.
- Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. 2020. *Integrated Public Use Microdata Series, Current Population Survey: Version 7.0 [dataset]*.
- Fryer Jr, Roland G, and Steven D Levitt. 2004. "The causes and consequences of distinctively black names." *The Quarterly Journal of Economics* 119 (3): 767–805.

- Gaddis, S Michael, Charles Crabtree, John B Holbein, and Steven Pfaff. 2024. "Racial/Ethnic Discrimination and Heterogeneity Across Schools in the US Public Education System: A Correspondence Audit of Principals." *Available at SSRN 4725007*.
- Goldin, Claudia, and Maria Shim. 2004. "Making a name: Women's surnames at marriage and beyond." *Journal of Economic Perspectives* 18 (2): 143–160.
- Gould, Eric D, Avi Simhon, and Bruce A Weinberg. 2020. "Does parental quality matter? Evidence on the transmission of human capital using variation in parental influence from death, divorce, and family size." *Journal of Labor Economics* 38 (2): 569–610.
- Hadah, Hussain. 2024. "The effect of racial and ethnic attitudes on Hispanic identity in the United States." *Southern Economic Journal*.
- Hurst, Erik, Yona Rubinstein, and Kazuatsu Shimizu. 2024. "Task-based discrimination." *American Economic Review* 114 (6): 1723–1768.
- Janssen, Jayley, Eleanor Seaton, Justin Jager, and Cindy Faith Miller. 2022. "Guidance or Gatekeeping: An Audit Examination of Racial Discrimination in Leading STEM High Schools: Systems that Marginalize BIPOC Youth Special Issue: Dismantling Oppression Series." *Journal of Research on Adolescence* 32 (2): 625–635.
- Kimball, Miles S, Claudia R Sahm, and Matthew D Shapiro. 2009. "Risk preferences in the PSID: Individual imputations and family covariation." *American Economic Review* 99 (2): 363–368.
- Kitagawa, Evelyn M. 1955. "Components of a difference between two rates." *Journal of the American statistical association* 50 (272): 1168–1194.
- Magruder, Jeremy R. 2010. "Intergenerational networks, unemployment, and persistent inequality in South Africa." *American Economic Journal: Applied Economics* 2 (1): 62–85.
- Oaxaca, Ronald. 1973. "Male-female wage differentials in urban labor markets." *International economic review*, 693–709.
- Rubinstein, Yona, and Dror Brenner. 2014. "Pride and prejudice: Using ethnic-sounding names and inter-ethnic marriages to identify labour market discrimination." *Review of Economic Studies* 81 (1): 389–425.
- Ruggles, Steven, Sarah Flood, Ronald Goeken, Jose Pacas, Megan Schouweiler, and Matthew Sobek. 2020. *Integrated Public Use Microdata Series, American Community Survey: Version 11.0 [dataset]*.

Trejo, Stephen J. 1997. "Why Do Mexican Americans Earn Low Wages?" *Journal of Political Economy* 105, no. 6 (December): 1235. <https://doi.org/10.1086/516391>.



Table 1: Number of Children by Parental Type

	Perental Type			
	White Father	White Father	Hispanic Father	Hispanic Father
	White Mother	Hispanic Mother	White Mother	Hispanic Mother
<b>Observations</b>	6,421,328	39,048	51,277	179,827
<b>Share</b>	0.96	0.01	0.01	0.03

<sup>1</sup> Source: Current Population Surveys (CPS) 1994-2019

<sup>2</sup> The sample includes Whites, who are married, and are between the ages 25 and 40. Ethnicity of a person's parents are identified by the parent's place of birth. A parent is Hispanic if she/he was born in a Spanish-speaking country. A parent is White if she/he was born in the United States.

Table 2: Summary Statistics of Outcomes Using Parent's Place of Birth

Variables	Father's and Mother's Ethnicities				Differences	
	White	White	Hispanic	Hispanic	HH - WW	HW - WH
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)	(5)	(6)
	(1)	(2)	(3)	(4)		
<b>Panel A: Children's</b>						
<b>Education</b>						
Men's education (Total	13.82	13.57	13.22	12.9	-0.92***	-0.36**
Years)	(2.42)	(2.4)	(2.34)	(2.31)	(0.01)	(0.02)
Women's education	14.06	13.79	13.42	13.24	-0.82***	-0.37**
(Total Years)	(2.37)	(2.44)	(2.38)	(2.39)	(0.01)	(0.02)
Men's High School	0.35	0.42	0.43	0.44	0.09***	0***
Dropout Rate	(0.48)	(0.49)	(0.49)	(0.5)	(0)	(0)

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Table 2: Summary Statistics of Outcomes Using Parent's Place of Birth (*continued*)

Variables	White	White	Hispanic	Hispanic	HH - WW (5)	HW - WH (6)
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)		
	(1)	(2)	(3)	(4)		
Women's High School Dropout Rate	0.36	0.43	0.45	0.46	0.09***	0.02***
	(0.48)	(0.49)	(0.5)	(0.5)	(0)	(0)
Men's Associate Degree Rate	0.15	0.15	0.12	0.12	-0.03***	-0.03***
	(0.36)	(0.36)	(0.33)	(0.32)	(0)	(0)
Women's Associate Degree Rate	0.19	0.17	0.14	0.15	-0.04***	-0.03***
	(0.39)	(0.38)	(0.35)	(0.36)	(0)	(0)
Men's BA Degree Rate	0.32	0.26	0.22	0.17	-0.15***	-0.05***
	(0.47)	(0.44)	(0.41)	(0.38)	(0)	(0)

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Table 2: Summary Statistics of Outcomes Using Parent's Place of Birth (*continued*)

Variables	White	White	Hispanic	Hispanic	HH - WW (5)	HW - WH (6)
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)		
	(1)	(2)	(3)	(4)		
Women's BA Degree Rate	0.36 (0.48)	0.31 (0.46)	0.25 (0.43)	0.22 (0.42)	-0.14*** (0)	-0.07*** (0)
Men's Professional Degree Rate	0.09 (0.28)	0.07 (0.26)	0.06 (0.23)	0.04 (0.19)	-0.05*** (0)	-0.02*** (0)
Women's Professional Degree Rate	0.1 (0.3)	0.09 (0.28)	0.07 (0.26)	0.06 (0.24)	-0.04*** (0)	-0.01*** (0)
<b>Panel B: Children's Employment and Earnings</b>						

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Table 2: Summary Statistics of Outcomes Using Parent's Place of Birth (*continued*)

Variables	White	White	Hispanic	Hispanic	HH - WW (5)	HW - WH (6)
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)		
	(1)	(2)	(3)	(4)		
Men's Unemployment Rate	0.04 (0.8)	0.05 (0.77)	0.07 (0.75)	0.07 (0.75)	0.02*** (0.00)	0.01*** (0.00)
Women's Unemployment Rate	0.04 (0.81)	0.05 (0.22)	0.06 (0.76)	0.06 (0.76)	0.02*** (0.00)	0.01*** (0.00)
Men's Log Hourly Earnings	2.51 (0.45)	2.44 (0.47)	2.43 (0.45)	2.42 (0.43)	-0.09*** (0)	-0.01** (0.01)
Women's Log Hourly Earnings	2.32 (0.49)	2.32 (0.46)	2.28 (0.46)	2.31 (0.42)	-0.02*** (0)	-0.03** (0.01)

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Table 2: Summary Statistics of Outcomes Using Parent's Place of Birth (*continued*)

Variables	White	White	Hispanic	Hispanic	HH - WW (5)	HW - WH (6)
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)		
	(1)	(2)	(3)	(4)		
Men's Log Annual Earnings	10.29 (1.01)	10.12 (1.05)	10.08 (1.01)	10.01 (1.04)	-0.28*** (0.01)	-0.04** (0.03)
Women's Log Annual Earnings	10.13 (0.78)	10.07 (0.78)	10.04 (0.73)	10.01 (0.73)	-0.12*** (0.01)	-0.03** (0.02)
<b>Panel C: Children's Hispanic Identity</b>						
Men	0.04	0.74	0.83	0.96		

Women	0.05	0.78	0.81	0.97
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<sup>1</sup> Source: The 1994-2019 Current Population Surveys (CPS) for children's outcomes

<sup>2</sup> The data is restricted to native-born United States citizens between 1994 and 2019 who are also White and between the ages of 25 and 40. I identify the ethnicity of a person's parents through the parent's place of birth. A parent is Hispanic if they were born in a Spanish-speaking country. A parent is White if they were born in the United States.

Table 3: Couples' Type

	Couples Type			
	White Husband	White Husband	Hispanic Husband	Hispanic Husband
	White Wife	Hispanic Wife	White Wife	Hispanic Wife
<b>Observations</b>	5,141,737	33,097	37,847	119,749
<b>Share</b>	0.96	0.01	0.01	0.02

<sup>1</sup> Source: 1960-2000 Census

<sup>2</sup> The sample includes Whites, who are married, with kids, and are between the ages 25 and 40. Ethnicity of a person's parents are identified by the parent's place of birth. A parent is Hispanic if she/he was born in a Spanish-speaking country. A parent is White if she/he was born in the United States.



Table 4: Summary Statistics of Synthetic Parents by Couple Type

Variables	Father's and Mother's Ethnicities				Differences	
	White	White	Hispanic	Hispanic	HH - WW (5)	HW - WH (6)
	White	Hispanic	White	Hispanic		
	(WW) (1)	(WH) (2)	(HW) (3)	(HH) (4)		
Husband's education (Total Years)	12.58 (2.88)	11.82 (3.75)	10.33 (4.40)	8.91 (4.25)	-3.67*** (0.01)	-1.49** (0.02)
Wife's education (Total Years)	12.36 (2.40)	10.71 (3.97)	11.01 (3.44)	8.68 (4.00)	-3.68*** (0.01)	0.29** (0.02)
Total Household education (Total Years)	24.95 (4.77)	22.68 (6.91)	21.50 (6.99)	17.69 (7.40)	-7.26** (0.01)	-1.18** (0.04)
Log Total Family Income	10.75 (0.57)	10.65 (0.67)	10.60 (0.68)	10.42 (0.66)	-0.33*** (0.00)	-0.05*** (0.01)
Husband's Log Hourly Earnings	1.74 (0.83)	1.76 (0.87)	1.72 (0.88)	1.55 (0.80)	-0.19*** (0.00)	-0.04*** (0.01)
Wife's Log Hourly Earnings	1.60 (0.93)	1.73 (0.88)	1.75 (0.89)	1.51 (0.79)	-0.09*** (0.01)	0.02** (0.02)
Fertility	3.84 (1.44)	4.05 (1.70)	4.28 (1.84)	4.29 (1.72)	0.44*** (0.00)	0.23** (0.01)

<sup>1</sup> Source: The 1960-2000 Census for synthetic parents, and 1994-2019 Current Population Surveys (CPS) for children's outcomes

<sup>2</sup> The data is restricted to native-born United States citizens who are also White, between the ages of 25 and 40, and have kids. I identify the ethnicity of a person's parents through the parent's place of birth. A parent is Hispanic if they were born in a Spanish-speaking country. A parent is White if they were born in the United States.

Table 5: Self-reported Hispanic Identity Among First-Generation Hispanic Immigrants and Native-Born

	Spanish-Speaking		Spanish-Speaking	
	Native Born Husband	Place of Birth Husband	Native Born Wife	Place of Birth Wife
<b>Percent White</b>	0.97	0.03	0.97	0.03
<b>Percent Hispanic</b>	0.03	0.97	0.03	0.97

<sup>1</sup> Source: 1960-2000 Census

<sup>2</sup> The sample includes Whites, who are married, and are between the ages 25 and 40.

Table 6: Effect of Having Hispanic Last Name

	(1)	(2)	(3)	(4)
	Years of Education	High School Dropout	Associate Degree	Bachelor Degree
<i>Panel A: Full Sample</i>				
HW <sub>ist</sub>	-0.20*** (0.05)	0.01 (0.01)	-0.02*** (0.01)	-0.03*** (0.01)
Observations	88377	90027	66927	90027
<i>Panel B: Women</i>				
HW <sub>ist</sub>	-0.25*** (0.06)	0.02 (0.01)	-0.03*** (0.01)	-0.04*** (0.01)
Observations	46516	47302	34334	47302
<i>Panel C: Men</i>				
HW <sub>ist</sub>	-0.16** (0.07)	0.00 (0.01)	-0.02** (0.01)	-0.02 (0.01)
Full Sample's Mean	13.48	0.43	0.15	0.26
Observations	41861	42725	32593	42725
Women's Mean	13.58	0.44	0.16	0.27
Men's Mean	13.38	0.43	0.14	0.24
p-value test Women - Men	p =0.87	p =0.25	p =0.92	p =0.24

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

<sup>1</sup> This table includes the estimation results of equation (1). All regressions include state-year fixed effects.

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> Standard errors are clustered on the state level.

Table 7: Effect of Having Hispanic Last Name on Employment

	(1)	(2)	(3)	(4)
	Unemployment	Unemployment	Unemployment	Unemployment
HW <sub>ist</sub>	0.01*** (0.00)	0.01** (0.00)	0.01* (0.00)	0.01 (0.00)
Constant	0.05*** (0.00)			
<i>Controlling for:</i>				
Age		X	X	X
State FE		X	X	X
Year FE		X	X	X
State-Year FE		X	X	X
Education			X	X
Parental Background				X
HW's Mean	0.07	0.07	0.07	0.07
Unemployment				
Observations	38 090	38 090	38 090	38 090

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1).

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> The sample is restricted to prime-age men.

<sup>4</sup> Standard errors are clustered on the state level.

Table 8: Effect of Having Hispanic Last Name (Log Annual Earnings)

	(1)	(2)	(3)	(4)	(5)
	Log annual earnings	Log annual earnings	Log annual earnings	Log annual earnings	Log annual earnings
HW <sub>ist</sub>	−0.05*** (0.02)	−0.05** (0.02)	−0.05* (0.02)	−0.02 (0.02)	−0.01 (0.02)
Constant	10.42*** (0.04)	9.46*** (0.07)			
<i>Controlling for:</i>					
Hours Worked		X	X	X	X
Age			X	X	X
State FE			X	X	X
Year FE			X	X	X
State-Year FE			X	X	X
Education				X	X
Parental Background					X
Observations	3621	3621	3621	3621	3621

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1).

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> The sample is restricted to men working full-time full-year and are wage and salary workers.

<sup>4</sup> Column one has the regression results when controlling for hours worked, age, education, year and state fixed effects. Column two has the results after controlling for education.

<sup>5</sup> Standard errors are clustered on the state level.

Table 9: Summary Statistics of Synthetic Parents by Couple Type (Mexican Hispanics)

Variables	Father's and Mother's Ethnicities				Differences	
	White	White	Hispanic	Hispanic	HH - WW (5)	HW - WH (6)
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)		
	(1)	(2)	(3)	(4)		
Husband's education (Total Years)	12.58 (2.88)	10.82 (3.78)	9.17 (4.22)	7.87 (3.94)	-4.71** (0.01)	-1.66** (0.03)
Wife's education (Total Years)	12.36 (2.40)	9.58 (4.00)	10.23 (3.36)	7.75 (3.77)	-4.62*** (0.01)	0.65** (0.02)
Total Household education (Total Years)	24.95 (4.77)	20.57 (6.88)	19.56 (6.60)	15.70 (6.73)	-9.25** (0.02)	-1.01** (0.04)
Log Total Family Income	10.75 (0.57)	10.52 (0.67)	10.48 (0.66)	10.33 (0.64)	-0.42*** (0.00)	-0.04*** (0.01)
Husband's Log Hourly Earnings	1.74 (0.83)	1.58 (0.85)	1.56 (0.84)	1.46 (0.79)	-0.28*** (0.00)	-0.02*** (0.01)
Wife's Log Hourly Earnings	1.60 (0.93)	1.56 (0.87)	1.63 (0.87)	1.40 (0.77)	-0.20*** (0.01)	0.07** (0.02)
Fertility	3.84 (1.44)	4.36 (1.81)	4.53 (1.91)	4.58 (1.80)	0.73*** (0.01)	0.17** (0.01)

<sup>1</sup> Source: The 1960-2000 Census for synthetic parents.

<sup>2</sup> The data is restricted to native-born United States citizens who are also White, between the ages of 25 and 40, and have kids. I identify the ethnicity of a person's parents through the parent's place of birth. A parent is Hispanic if they were born in a Mexico. A parent is White if they were born in the United States.

Table 10: Summary Statistics of Synthetic Parents by Couple Type (Non-Mexican Hispanics)

Variables	Father's and Mother's Ethnicities				Differences	
	White	White	Hispanic	Hispanic	HH - WW	HW - WH
	White	Hispanic	White	Hispanic		
	(WW)	(WH)	(HW)	(HH)	(5)	(6)
	(1)	(2)	(3)	(4)		
Husband's education (Total Years)	12.58 (2.88)	13.40 (2.88)	12.68 (3.38)	10.47 (3.95)	-2.11** (0.01)	-0.72** (0.03)
Wife's education (Total Years)	12.36 (2.40)	12.70 (2.81)	12.57 (2.76)	10.20 (3.67)	-2.16** (0.01)	-0.14** (0.03)
Total Household education (Total Years)	24.95 (4.77)	26.12 (4.99)	25.28 (5.51)	20.75 (6.84)	-4.20** (0.02)	-0.84* (0.05)
Log Total Family Income	10.75 (0.57)	10.84 (0.60)	10.82 (0.62)	10.51 (0.66)	-0.24*** (0.00)	-0.02*** (0.01)
Husband's Log Hourly Earnings	1.74 (0.83)	2.00 (0.82)	1.96 (0.87)	1.48 (0.87)	-0.27*** (0.00)	-0.04** (0.01)
Wife's Log Hourly Earnings	1.60 (0.93)	1.93 (0.82)	1.90 (0.89)	1.55 (0.84)	-0.05*** (0.01)	-0.03** (0.02)
Fertility	3.84 (1.44)	3.52 (1.28)	3.66 (1.42)	3.95 (1.62)	0.10*** (0.01)	0.14** (0.02)

<sup>1</sup> Source: The 1960-2000 Census for synthetic parents, and 1994-2019 Current Population Surveys (CPS) for children's outcomes

<sup>2</sup> The data is restricted to native-born United States citizens who are also White, between the ages of 25 and 40, and have kids. I identify the ethnicity of a person's parents through the parent's place of birth. A parent is Hispanic if they were born in a Spanish-speaking country other than Mexico. A parent is White if they were born in the United States.

## **A Responses to Editors and Referee**

I would like to thank the editor and the anonymous referees for their insightful comments, suggestions, and effort and time in reviewing this paper. I have addressed all the comments and suggestions in the revised manuscript. Below, I provide a summary of the changes made to the manuscript in response to the comments and suggestions.



## B Responses to Referee One

I would like to thank referee one for the insightful comments and suggestions. Below is a detailed response to the comments and suggestions.

**R1:** 1. My first concern relates to the threats to identification. It is feasible that children born to HW couples may differ systematically to children born to WH couples, particularly with respect to unobservable characteristics important for labor market outcomes. For example, HW pairs may exhibit differing parental characteristics related to parenting styles, parental preferences for education, gender norms and beliefs. The paper would be improved by including an expanded discussion around the threat to identification. In light of these issues, the paper would be improved by providing a more thorough discussion of the relative advantages of the current approach, compared to the conventional Oaxaca-Blinder decomposition.

I included an extensive discussion of the differences between HW and WH couples. These differences, that includes cultural differences, in couple of sections throughout the manuscript. While I acknowledge the concern, the estimation strategy rest of the fact that selection in the marriage market decreases the differences between HW and WH couples. This is the reason why comparing children of intermarried couples provides a better comparison than comparing children of endogamous marriages, i.e. marriages where both parents are either non-Hispanic White or Hispanic. I also included a discussion of the relative advantages of the current approach compared to the conventional Oaxaca-Blinder-Kitagawa decomposition. I argue that the current approach provides a more accurate estimate of gaps that are due to discrimination. In fact, the concern the reviewer raises is one of the reasons why my approach is preferred over the Oaxaca-Blinder-Kitagawa since children of endogamous marriages are more

likely to have different characteristics than children of intermarried couples, including those that are unobservable. I argue, and show from the data, that children of intermarried couples are more likely to have similar characteristics than children of endogamous couples, see sections 3.1, and 4.

**R1:** 2. The analysis sample is restricted to individuals who self-identify as ‘White’. It is likely that this self-identification of ethnicity is endogenous to labor market outcomes. Importantly, the unobservable determinants of racial identification are potentially correlated with labor market outcomes. The paper would be improved by including a more thorough discussion of this (sample) selection issue. Related to this is the depiction of parents born in the United States as ‘White’. This seems particularly over-simplifying and ignores the long history of immigration. A more accurate description would be to refer to this group as US born.

I thank the reviewer for this comment and concern over the endogeneity of self-identification and labor market outcomes. I added some discussion over why I chose those who self-identify as White. I argue that inclusion those that are not White could contaminate the estimate of bias against Hispanics due to the racial signal. Moreover, (Hadah [2024](#)) shows that there exists strong correlation between bias against Hispanics and self-reported Hispanic identity. Their results show that by not including Hispanics that attrit in the estimation of racial and ethnic gaps, the estimate of bias against Hispanics could be overestimated in the most biased states—more on ethnic attrition of Hispanics could be found in Antman, Duncan, and Trejo ([2016](#)) and Antman, Duncan, and Trejo ([2020b](#)). Regarding

the comment of oversimplifying and ignoring the long history of immigration in the US, the majority of immigrants from Spanish-speaking countries in the US are first- and second-generation (see (Antman, Duncan, and Trejo 2020a)). I also show that the probability that parents are second-generation+ immigrants from Spanish-speaking countries is very low using Census data from 1960 to 2000, see Table 5.

**R1:** 3. The discussion on the construction of the ‘synthetic parents’ is somewhat brief. The paper suggests that the potential parents are matched using the birth year of the child and the parent’s place of birth to the children’s information collected in the CPS sample. While not explicitly stated in the paper, I assume that this sample of synthetic parents is used to construct mean parental education and family income at the time of the birth of the child. The process for matching the potential parents to the children is somewhat aggregated and there is likely considerable heterogeneity in the mean educational attainment of the potential parents within the set of children with the same birth year with the same parent’s country of birth. The paper could be improved by exploring the possibility of improving the quality of the match of potential parents by including further characteristics to match the potential parents to their children.

I appreciate this insightful suggestion. I have expanded the discussion and provided a detailed example of the ‘synthetic parents’ construction methodology. While additional matching dimensions would be valuable, the limitations of publicly available data constrain the potential matching criteria. Nevertheless, the

current approach provides meaningful estimates while acknowledging these data constraints.

**R1:** 4. The description of the estimated model is somewhat brief. However, there are two main issues associated with statistical inference on the estimated parameters in model (1). First, there is a ‘generated regressor’ issue associated with using estimated group-level parental education. A failure to account for this sampling variation will lead to misleadingly small standard errors. Second, given this group structure for parental education, it seems reasonable to assume that the model errors are uncorrelated across clusters but correlated within (potential parents) clusters. It is well understood that failing to account for this ‘clustering’ problem can lead to misleadingly small standard errors, narrow confidence intervals, and low p-values.

Thank you for these important methodological points. Regarding the generated regressor issue: The parental characteristics are included solely as controls and not for inference purposes. I do not interpret these coefficients, as my primary interest lies in  $\beta_1$ , which captures the gap between Hispanic and White last names. Since I am only using these synthetic characteristics as controls and not making inference about their coefficients, this should not affect the standard errors or p-values of my coefficient of interest  $\beta_1$ , which is not a generated regressor.

**R1:** 5. The paper would be improved through an expanded discussion of the impact of measurement error on the reported estimates.

While there is a well understood result in the measurement error literature that measures of group mean parental education will provide estimates that are more robust to the presence of measurement error in individual level measures of parental education, there is still an issue with the non-random attrition of potential parents. Specifically, not all potential parents have children in the CPS sample, nor do all children in the CPS sample have parents in the sample of potential parents. Moreover, the non-random attrition of potential parents implies that mean parental education may be systematically higher or lower than the actual parental education of the children in the CPS sample. The paper would be improved by providing an expanded discussion of the likely impacts of measurement error on the reported estimates.

Thank you for these important methodological points. Let me clarify that the synthetic parents are constructed using the birth year of the child. The place of birth of parents—mothers and fathers—are questions that are asked of all participants in the Current Population Survey (CPS) starting 1994. Therefore, I do not use the information of parents that are in the CPS sample at the time of the survey. Thus, the concern over the attrition of parents in the sample is not applicable to my analysis. Please see the data section for a discussion of the data used in the analysis.

## C Responses to Referee Two

I would like to thank referee two for the insightful and constructive comments and suggestions. Below is a detailed response to the comments and suggestions.

**R2:** 1. The paper needs to be more clearly motivated in the introduction. There are a lot of reasons why studying discrimination by race and ethnicity is important and the paper would benefit from clearly articulating this, including discussing the implications of this discrimination. You mention economic mobility and I think there is more you can say about this. I also think clearly stating the contributions of the paper earlier on would be important.

Thank you for the important suggestion. I have expanded the introduction to better motivate the study. I have included a discussion of the implications of discrimination on economic mobility and the contributions of the paper. I have also included a discussion of the importance of studying discrimination

**R2:** 2. I would also like to see a clearer theory and review of the literature on the topic. For example, why should we expect that discrimination will affect educational attainment? Hispanics are one of the fastest growing groups entering college, but the extent to which they complete an associate or BA degree may reflect discrimination that happens when students are in school that ultimately translates into differences in attainment. Why might we expect differences in employment and years of education? Why might we expect differences by gender?

I appreciate this suggestion. Here are my replies to the different comments.

First, regarding including more on why discrimination could affect educational attainment. I have expanded the part of the introduction that discusses

differences in education and the channels in which discrimination can affect educational attainment. The literature on discrimination and education shows that discrimination can affect educational attainment of minorities through various channels, including differences in school quality and bias from teachers, administrators, counselors, etc. These biases could lead to differences in educational attainment by preventing students access to some schools, recommendation letters, or counselors restricting access to more advanced courses, etc. Consequently, these biases could lead to differences in educational attainment. For example, having access to advanced courses in high school or better recommendation letters could affect the likelihood of attending college.

Second, if minorities face discrimination in access to education and the labor market, then we would expect differences in employment and years of education. The literature shows that discrimination can affect labor market outcomes through various channels, including differences in access to jobs and wage differences.

Finally, to address the comment here, and in other places, on why we might expect differences between genders. I added a discussion of why we might expect differences between men and women in the results section. I believe that showing that there might be heterogeneity in gaps between men and women in educational outcomes to be an important contribution of the paper since the literature studying gaps in earnings mainly focuses on the average gap between men. Moreover, showing that couples with a Hispanic husband and a White wife do not invest differently in their children than couples with a White husband and a Hispanic wife could be a way to test for cultural differences between the two groups.

**R2:** 3. Occupational segregation can also reflect discrimination in the labor market with important implications for economic mobil-

ity and other outcomes, and it would be important to mention this in the literature review. In general, the review of the literature needs to provide more details about the different studies and how your paper contributes to that literature above and beyond using a cleaner comparison.

Thank you for this suggestion. I have included a discussion of occupational segregation in the literature review and added how my paper contributes to the different strands of the literature.

**R2:** 4. There are places throughout the paper where additional references are needed. For example, when you state in the introduction on page 3 that discrimination can lead to lower wages, reduced opportunities, and hinder assimilation this statement needs references.

Thank you for pointing this out. I have added references to such statements.

**R2:** 5. Can you explain why you discuss assimilation and in what ways this is connected to your theory given that you are focusing on U.S. born children? If this matters because you are focusing on U.S. born Hispanic children with one foreign-born parent, then you need to clearly state this.

Thank you for the comment. I added a footnote to the introduction to address it.

**R2:** 6. You also need to state clearly and early in the paper that your study focuses on children with a foreign-born parent. Children with U.S. born Hispanic parents may be different than those with foreign-born parents and you could more explicitly discuss this in the paper.



I appreciate this comment. I made it more clear throughout the paper that I focus on children with a foreign-born parent.

**R2:** 7. Also given the differences in the characteristics of immigrants from different Spanish-speaking countries living in the U.S. (differences in socioeconomic status, education, etc.), you probably want to mention that your study is not capturing this. Further, to the extent that men and women migrate from different countries and have different pre- and post-migration characteristics then this might affect your results.

One possible way to address this is to conduct sensitivity analyses limited to Children whose parents were likely born in Mexico or who respond themselves that they are Mexican. Given that immigrants from Mexico are the largest immigrant group from a Spanish speaking country in the U.S., this may offer an even cleaner comparison. There could still be differences in the characteristics of Mexican mothers and fathers, but you could potentially check this in the data.

Thank you for this suggestion. I made it clear in the paper that I do not capture differences in the characteristics of immigrants from different Spanish-speaking countries. I also added some results and discussion as a sensitivity analysis breaking down the results for Hispanic children with Mexican parents versus Hispanic children with non-Mexican parents.

**R2:** 8. There are several sections that are repeated in the paper and I would suggest you streamline the text. For example, you review results twice, but this isn't necessary.

Similarly, I think you can more systematically organize the section describing your empirical strategy and clearly explaining your identification strategy, the concerns that it helps you overcome, your assumptions, and how you are testing whether these assumptions likely

hold. Currently this is explained in multiple sections throughout the paper.

I appreciate this comment. I have streamlined the text and reorganized the paper to address these concerns.

**R2:** 9. Can you provide an example that illustrates how you link individuals in the CPS to the synthetic parents?

I added an example to the data section that illustrates how I link individuals in the CPS to the synthetic parents.

**R2:** 10. I would like more details about the sample and the decisions you make. For example, you identify your sample as U.S. born children who identify as White in the CPS but some of these may also identify as Hispanic no? Do you restrict your sample to respondents who identify as White Hispanic or not? How many individuals in your sample identify as White non-Hispanic even if they have a parent born in a Spanish speaking country and how many do not? If someone has a Hispanic parent but do not identify as Hispanic those may be different than people with a Hispanic parent who identify as Hispanic.

If there are people who identify as White non Hispanic in your sample even though they have a parent born in a Spanish speaking country, can you do a sensitivity analysis removing them?

For example, on page 18 you say “I also find a significant earnings gap between those that identify as Hispanic.” Can you explain this statement? Is this related to the point I made above?

Thank you for the comment. I added more description of the sample to the data section and the reasoning of why I chose those who self-identify as White.

**R2:** 11. If there are people who identify as White non Hispanic in your sample even though they have a parent born in a Spanish speaking country, can you do a sensitivity analysis removing them?

Thank you for the comment. I added more description of the sample to the data section and the reasoning of why I chose those who self-identify as White.

**R2:** 12. For example, on page 18 you say “I also find a significant earnings gap between those that identify as Hispanic.” Can you explain this statement? Is this related to the point I made above?

Thank you for the comment. I added more description of the sample to the data section and the reasoning of why I chose those who self-identify as White.

**R2:** 13. You report results for men and women and, I am sorry if I missed it, but I would like to see this motivated in the paper as there are many reasons for doing the analyses separately. See my earlier point on the lit review/theory.

Please see my response to the earlier comment on why we might expect differences between men and women.

**R2:** 14. It would also be important to discuss effect sizes. Some of the findings seem to be small and you should discuss whether they are economically meaningful. Further, there should be more discussion about what your findings mean to understand discrimination for Hispanics and how it plays out, including by gender and in what ways they fall short in answering this question.

Thank you for the suggestion. I have included a discussion of the effect sizes and the economic meaning of the results. I have also included a discussion of

what the findings mean for understanding discrimination against Hispanics and how it plays out.

**R2:** 15. How are you measuring the different outcomes? I don't believe you discuss in the paper. This may be obvious, but I think it is still important to mention for clarity.

Thank you for the comment. I have included a discussion of how I measure the different outcomes in the data section.

**R2:** 16. When you control for education in models that examine earnings, the effect becomes statistically insignificant, what happens if you include industry or occupation fixed effects? Can you do that? Then you'd be comparing people within the same industry or occupation.

I appreciate this comment. I have added a discussion of the results when I include occupation fixed effects to the sensitivity analysis section.

**R2:** 17. The conclusion repeats much of what was said in the body of the paper, and I would like to see more discussion about the implications of your findings to understand disparities in education and labor outcomes between people with different ethnic background, and to what extent you can conclude these differences can be attributed to discrimination. It would also be important to compare your results with other literature on this topic.

Thank you so much for this comment. I have expanded the conclusion to include more discussion about the implications of the findings and how they can be

attributed to discrimination. I have also included a discussion of how my results compare to the literature on this topic.

**R2:** 18. On page 14, this sentence seems to be incomplete: “Consequently, comparing WH and HW children to each other to analyze discrimination against Hispanics in the labor market.”

Thank you for pointing this out. I have corrected this sentence.

**R2:** 19. Throughout the paper you refer to people with a parent born in a Spanish speaking country as “children who have a Spanish-sounding last name” I would encourage you to soften this language and say “who likely have” a Spanish sounding last name. First, you do not know if a person actually does have the last name of their father. Second, while it is true that Spanish sounding last names are very common in Spanish-speaking Latin American countries and among Latinos in the U.S., this may not be true across the board and many people born in Spanish speaking countries, who are Spanish speakers and Hispanic, may not have a traditionally sounding Spanish last name.

Thank you for your comment. I changed the mention of "children who have a Spanish-sounding last name" to "children who likely have a Spanish-sounding last name" throughout the paper.

## D Responses to Referee three

I would like to thank referee three the comments. Below is a detailed response to the comments and suggestions.

**R3:** 1. As the author states on page 4, the key identifying assumption is that people born to HW parents are similar to their WH peers. Only when this assumption is fulfilled can the author attribute the estimated coefficients to evidence of discrimination. However, Table 4 clearly shows that the differences between HW and WH synthetic parents' characteristics, such as the father's/mother's education and total family income, are all significantly different. More specifically, HW families exhibit lower levels of education and income compared to their WH counterparts. Based on this, it is not clear whether the estimated coefficients are indeed evidence of discrimination or they merely reflect the fact that HW children grew up in an environment with less resources/educated parents.

The manuscript heavily adopts the methodology of Rubinstein and Brenner (2014), which examines the impacts of having a Sephardic-sounding surname on wages by comparing the Israeli-Jewish men born to Sephardic fathers and Ashkenazi mothers (SA) with those born to Ashkenazi fathers and Sephardic mothers (AS). They too find that the AS and SA families have statistically different educational and labor market outcomes. However, in their case, despite the fact that Sephardic Israelis face tougher labor market conditions, SA parents exhibit better education and labor market outcomes than AS parents. Therefore, any evidence indicating that SA offspring have worse labor market outcomes provides convincing (and potentially a lower bound) evidence of discrimination.

Thank you for the comment. Even though the synthetic parents have different characteristics, the estimation strategy rests on the fact that selection in the marriage market decreases the differences between HW and WH couples. This is the reason why comparing children of intermarried couples provides a better com-

parison than comparing children of endogamous marriages, i.e. marriages where both parents are either non-Hispanic White or Hispanic. I also included a discussion of the relative advantages of the current approach compared to the conventional Oaxaca-Blinder-Kitagawa decomposition. I argue that the current approach provides a more accurate estimate of gaps that are due to discrimination. In fact, the concern the reviewer raises is one of the reasons why my approach is preferred over the Oaxaca-Blinder-Kitagawa since children of endogamous marriages are more likely to have different characteristics than children of intermarried couples, including those that are unobservable. I argue, and show from the data, that children of intermarried couples are more likely to have similar characteristics than children of endogamous couples.

## ONLINE APPENDIX

# The Impact of Hispanic Last Names on Educational and Labor Market Outcomes

Hussain Hadah<sup>\*</sup>

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## A Tables

Table A.1: Summary Statistics of Synthetic Parents by Couple Type (Mexican Hispanics)

Variables	Father's and Mother's Ethnicities				Differences	
	White	White	Hispanic	Hispanic		
	White	Hispanic	White	Hispanic	HH - WW	HW - WH
	(WW)	(WH)	(HW)	(HH)	(5)	(6)
	(1)	(2)	(3)	(4)		
Husband's education (Total Years)	12.58 (2.88)	10.82 (3.78)	9.17 (4.22)	7.87 (3.94)	-4.71** (0.01)	-1.66** (0.03)
Wife's education (Total Years)	12.36 (2.40)	9.58 (4.00)	10.23 (3.36)	7.75 (3.77)	-4.62*** (0.01)	0.65** (0.02)
Total Household education (Total Years)	24.95 (4.77)	20.57 (6.88)	19.56 (6.60)	15.70 (6.73)	-9.25** (0.02)	-1.01** (0.04)
Log Total Family Income	10.75 (0.57)	10.52 (0.67)	10.48 (0.66)	10.33 (0.64)	-0.42*** (0.00)	-0.04*** (0.01)
Husband's Log Hourly Earnings	1.74 (0.83)	1.58 (0.85)	1.56 (0.84)	1.46 (0.79)	-0.28*** (0.00)	-0.02*** (0.01)
Wife's Log Hourly Earnings	1.60 (0.93)	1.56 (0.87)	1.63 (0.87)	1.40 (0.77)	-0.20*** (0.01)	0.07** (0.02)
Fertility	3.84 (1.44)	4.36 (1.81)	4.53 (1.91)	4.58 (1.80)	0.73*** (0.01)	0.17** (0.01)

<sup>1</sup> Source: The 1960-2000 Census for synthetic parents.

<sup>2</sup> The data is restricted to native-born United States citizens who are also White, between the ages of 25 and 40, and have kids. I identify the ethnicity of a person's parents through the parent's place of birth. A parent is Hispanic if they were born in a Mexico. A parent is White if they were born in the United States.

Table A.2: Summary Statistics of Synthetic Parents by Couple Type (Non-Mexican Hispanics)

Variables	Father's and Mother's Ethnicities				Differences	
	White	White	Hispanic	Hispanic		
	White	Hispanic	White	Hispanic	HH - WW	HW - WH
	(WW)	(WH)	(HW)	(HH)	(5)	(6)
	(1)	(2)	(3)	(4)		
Husband's education (Total Years)	12.58 (2.88)	13.40 (2.88)	12.68 (3.38)	10.47 (3.95)	-2.11** (0.01)	-0.72** (0.03)
Wife's education (Total Years)	12.36 (2.40)	12.70 (2.81)	12.57 (2.76)	10.20 (3.67)	-2.16** (0.01)	-0.14** (0.03)
Total Household education (Total Years)	24.95 (4.77)	26.12 (4.99)	25.28 (5.51)	20.75 (6.84)	-4.20** (0.02)	-0.84* (0.05)
Log Total Family Income	10.75 (0.57)	10.84 (0.60)	10.82 (0.62)	10.51 (0.66)	-0.24*** (0.00)	-0.02*** (0.01)
Husband's Log Hourly Earnings	1.74 (0.83)	2.00 (0.82)	1.96 (0.87)	1.48 (0.87)	-0.27*** (0.00)	-0.04** (0.01)
Wife's Log Hourly Earnings	1.60 (0.93)	1.93 (0.82)	1.90 (0.89)	1.55 (0.84)	-0.05*** (0.01)	-0.03** (0.02)
Fertility	3.84 (1.44)	3.52 (1.28)	3.66 (1.42)	3.95 (1.62)	0.10*** (0.01)	0.14** (0.02)

<sup>1</sup> Source: The 1960-2000 Census for synthetic parents, and 1994-2019 Current Population Surveys (CPS) for children's outcomes

<sup>2</sup> The data is restricted to native-born United States citizens who are also White, between the ages of 25 and 40, and have kids. I identify the ethnicity of a person's parents through the parent's place of birth. A parent is Hispanic if they were born in a Spanish-speaking country other than Mexico. A parent is White if they were born in the United States.

Table A.3: Effect of Having Hispanic Last Name (Log Weekly Earnings)

	(1)	(2)	(3)	(4)
	Log weekly earnings	Log weekly earnings	Log weekly earnings	Log weekly earnings
$HW_{ist}$	−0.03** (0.01)	−0.05*** (0.01)	−0.02* (0.01)	−0.01 (0.01)
Constant	6.60*** (0.03)			
<i>Controlling for:</i>				
State FE		X	X	X
Year FE		X	X	X
State-Year FE		X	X	X
Age		X	X	X
Education			X	X
Parental Background				X
Observations	6568	6568	6568	6568

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1) where the dependent variable is log weekly earnings.

<sup>2</sup>  $HW$  is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> The sample is restricted to men working full-time and are wage and salary workers.

<sup>4</sup> Column one has the regression results when controlling for hours worked, age, education, year and state fixed effects. Column two has the results after controlling for education.

<sup>5</sup> Standard errors are clustered on the state level.

Table A.4: Effect of Having Hispanic Last Name: Hispanics with Mexican Ancestry

	(1) Years of Education	(2) High School Dropout	(3) Associate Degree	(4) Bachelor Degree
<i>Panel A: Full Sample</i>				
HW <sub>ist</sub>	-0.25*** (0.06)	0.01 (0.01)	-0.02*** (0.01)	-0.03*** (0.01)
Observations	62483	63867	52008	63867
<i>Panel B: Women</i>				
HW <sub>ist</sub>	-0.31*** (0.07)	0.01 (0.01)	-0.02** (0.01)	-0.04*** (0.01)
Observations	33292	33946	27072	33946
<i>Panel C: Men</i>				
HW <sub>ist</sub>	-0.16** (0.08)	0.01 (0.02)	-0.01 (0.01)	-0.02 (0.02)
Full Sample's Mean	13.07	0.47	0.13	0.19
Observations	29191	29921	24936	29921
Women's Mean	13.16	0.47	0.14	0.2
Men's Mean	12.96	0.46	0.13	0.17

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1). All regressions include state-year fixed effects.

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> Standard errors are clustered on the state level.

Table A.5: Effect of Having Hispanic Last Name: Hispanics with non-Mexican Ancestry

	(1) Years of Education	(2) High School Dropout	(3) Associate Degree	(4) Bachelor Degree
<i>Panel A: Full Sample</i>				
HW <sub>ist</sub>	-0.25*** (0.07)	0.01 (0.01)	-0.04*** (0.01)	-0.04*** (0.01)
Observations	37893	38372	24567	38372
<i>Panel B: Women</i>				
HW <sub>ist</sub>	-0.35*** (0.11)	0.03** (0.02)	-0.04** (0.02)	-0.06*** (0.02)
Observations	19774	20039	12476	20039
<i>Panel C: Men</i>				
HW <sub>ist</sub>	-0.24** (0.10)	0.00 (0.02)	-0.04* (0.02)	-0.04* (0.02)
Full Sample's Mean	14.07	0.38	0.16	0.36
Observations	18119	18333	12091	18333
Women's Mean	14.17	0.38	0.17	0.38
Men's Mean	13.97	0.38	0.16	0.34

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1). All regressions include state-year fixed effects.

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> Standard errors are clustered on the state level.

Table A.6: Effect of Having Hispanic Last Name: Hispanics with Mexican Ancestry

	(1)	(2)	(3)	(4)
	Log weekly earnings	Log weekly earnings	Log weekly earnings	Log weekly earnings
HW <sub>ist</sub>	−0.01 (0.02)	−0.04** (0.02)	−0.01 (0.01)	−0.01 (0.02)
Constant	6.53*** (0.04)			
<i>Controlling for:</i>				
State FE		X	X	X
Year FE		X	X	X
State-Year FE		X	X	X
Age		X	X	X
Education			X	X
Parental Background				X
Observations	4515	4515	4515	4515

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1) where the dependent variable is log weekly earnings.

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> The sample is restricted to men working full-time and are wage and salary workers.

<sup>4</sup> Column one has the regression results when controlling for hours worked, age, education, year and state fixed effects. Column two has the results after controlling for education.

<sup>5</sup> Standard errors are clustered on the state level.

Table A.7: Effect of Having Hispanic Last Name: Hispanics with Non-Mexican Ancestry

	(1)	(2)	(3)	(4)
	Log weekly earnings	Log weekly earnings	Log weekly earnings	Log weekly earnings
HW <sub>ist</sub>	−0.04 (0.03)	−0.07** (0.03)	−0.03 (0.03)	−0.03 (0.03)
Constant	6.70*** (0.03)			
<i>Controlling for:</i>				
State FE		X	X	X
Year FE		X	X	X
State-Year FE		X	X	X
Age		X	X	X
Education			X	X
Parental Background				X
Observations	2853	2853	2853	2853

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1) where the dependent variable is log weekly earnings.

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> The sample is restricted to men working full-time and are wage and salary workers.

<sup>4</sup> Column one has the regression results when controlling for hours worked, age, education, year and state fixed effects. Column two has the results after controlling for education.

<sup>5</sup> Standard errors are clustered on the state level.



Table A.8: Descriptive Statistics About Selection Into Occupation by Type

Occupation	Hispanic Last Name	White Last Name	Difference-in-means: HW - WH	
	Hispanic-White	White-Hispanic	Difference	p value
<b>Management and Business</b>	0.111	0.129	-0.018	0.000
<b>STEM Occupations</b>	0.030	0.040	-0.009	0.000
<b>Healthcare Occupations</b>	0.063	0.058	0.005	0.002
<b>Education and Social Services</b>	0.062	0.064	-0.002	0.237
<b>Arts, Media, and Entertainment</b>	0.028	0.034	-0.006	0.000
<b>Service Occupations</b>	0.107	0.099	0.008	0.000
<b>Manual and Industrial Labor</b>	0.199	0.171	0.028	0.000

<sup>1</sup> Source: Current Population Survey (CPS) 1994-2019.

Table A.9: Effect of Having Hispanic Last Name (Log Annual Earnings)

	(1)	(2)	(3)	(4)	(5)
	Log annual earnings	Log annual earnings	Log annual earnings	Log annual earnings	Log annual earnings
HW <sub>ist</sub>	−0.05*** (0.02)	−0.05** (0.02)	−0.05* (0.02)	−0.02 (0.02)	−0.01 (0.02)
Constant	10.42*** (0.04)	9.46*** (0.07)			
<i>Controlling for:</i>					
Hours Worked		X	X	X	X
Age			X	X	X
State FE			X	X	X
Year FE			X	X	X
State-Year FE			X	X	X
Occupation FE				X	X
Parental Background					X
Observations	3621	3621	3621	3487	3487

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

<sup>1</sup> This table includes the estimation results of equation (1).

<sup>2</sup> HW is an indicator variable that is equal to 1 if a person is the child of a Hispanic-father and White-mother.

<sup>3</sup> The sample is restricted to men working full-time full-year and are wage and salary workers.

<sup>4</sup> Column one has the regression results when controlling for hours worked, age, education, year and state fixed effects. Column two has the results after controlling for education.

<sup>5</sup> Standard errors are clustered on the state level.