"*We Wanted Employers, But We Got People Instead*": Racialization of Immigrant Ethnicity and Occupational Attainment in the Western U.S. Labor Market

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ABSTRACT

This paper explores how immigrants' ethnic identification influences their occupational status attainment in the United States West Coast labor market. Data from the American Community Survey from 2008 to 2013 are divided into ethnic categories to compare how immigrant workers fare vis-à-vis US-born workers. It uses educational attainment, immigration status, and English proficiency to predict the variance in occupational status between and within ethnic groups. The analysis is based on a nested three-block ordinary least squares regression (OLS), and an interacted model between the three main predictors and the ethnic group identifiers. The findings confirm the significant effect of education, immigration status, and English proficiency on occupational status scores. As expected, increases in education, holding a legal immigration status, and being fluent in English have positive effects on occupational status attainment, other things being equal. This positive relationship, however, is not equally manifested across ethnic groups. The study reveals that a significant percentage of these predictors' explanatory power is lost among some ethnic groups, strongly suggesting a patterned and significant effect of labor market discrimination. Contrast analysis of the predictive margins of the four-way interacted model provides further evidence in support of negative exclusionary discrimination against some immigrant groups, especially Mexicans and Central Americans. This negative effect is especially evident among highly educated Mexicans and Central Americans, who, regardless of their legal status, and English fluency, tend to be more likely to work in lower status occupations than their immigrant counterparts. This finding questions previously established notions according to which maximizing human capital,

possessing legal immigrant status, and being fluent in English pave the way to the successful integration of immigrants into the U.S. labor market. This study, thus, provides much needed empirical evidence supporting some of the arguments put forward by the Racialization of Ethnicity theory.

INTRODUCTION

In George J. Borjas' *"We Wanted Workers,"* a personal account of his research career, the author describes Swiss novelist Max Frisch's observation in response to Turkish guest workers settling in Germany permanently: "We wanted workers, but we got people instead" (Borjas 2016). This remark summarizes the realization of political and economic elites and tenured professors that, while often defined as "units of production," migrant workers are not socially deprived robots; they bring with them their humanity, their cultural beliefs, social practices, and often their own families. Borjas fully supports this reality and has dedicated his career to discern the individual and market impacts of immigrants' peoplehood on the receiving labor market. Interestingly, Borjas, as most other labor economists and (as this study will reveal) social scientists in general, believes this social principle does not hold true for those demanding immigrant labor, namely: employers, coworkers and clients. Dominant narratives of labor market social relations disregard the mounting research on labor market discrimination initiated by Becker, Arrow, and other economists half a century ago (Ashenfelter and Rees 2015, Becker 1971). Consequently, Western developed labor markets are framed as being rational, objective, and disembedded from social contexts (including racialized prejudices). By ignoring the overwhelming empirical evidence of the effect of discrimination on unequal labor market outcomes, neoclassical economists seem to be basing their econometric model assumptions

more on ideology than fact. Hence, paraphrasing Frisch's quote, I suggest that from their perspective immigrant workers may say: "We wanted employers, but we got people instead." The analytical approach of my research originates from this epistemological tension, and makes the argument that as a social institution (Hughes 1949), the labor market has inherent ontological inefficiencies that produce and reproduce racialized discriminatory practices that militate against the supposedly leveling effects of neutral factors such as human capital.

This paper examines how the racialized U.S. social context in which the labor market operates affects the occupational status attainment of native and immigrant ethnic groups. It measures the effect of the interactions between the ascribed (both socio-demographic—gender, age, and marital status; and cultural—nativity and ethnic identity) and achieved (both socioeconomic—educational level and education origin; and cultural—English proficiency and legal status) characteristics of workers on labor market outcomes as a marker of socioeconomic status differentials. Aside from providing compelling empirical evidence of the racialization of ethnicity, my main contribution to the literature is bridging established opposing analytical perspectives that rarely communicate with one another and have two main shortcomings. The first approach is a *demand-side* perspective and frames labor market outcome inequalities as being mainly the result of differences in worker's acquired skills, assuming that the labor market is a space free of subjective social action. The second approach comes from a *supply-side* perspective and starts with the assumption that discrimination in the labor market is based mainly on systematic or institutionalized discrimination by employers who negatively perceived ascribed characteristics, which in turn cause lower occupational status outcomes of marginalized

groups. This paper examines the rationality and objectivity of the market as proposed by supply-side market fundamentalists by using empirical analysis of the effect of human capital on market outcomes when other factors of influence are controlled for, and by measuring how these effects are moderated by immigrant-specific achieved characteristics across ethnic groups. Additionally, this paper addresses the shortcomings of supply-side market structuralist and post-structuralist research, which tends to sample on the dependent variable by selecting only those marginalized populations whose detrimental labor market outcomes are evident. This research design mistake mechanically eliminates some of the variance of the outcome variable, which can exaggerate the magnitude and significance of the findings and may results in confirmation bias and false inferences. To avoid this common mistake, I include quantitative analyses of occupational status attainment of all the working population, both native and immigrant, available in the ACS sample for my area and period of interest and grouped by ethnic origin. To further prevent biasing my findings, I also include a broad range of occupational status determinants deemed important by labor market researchers in several disciplines. By addressing the abovementioned research flaws, the resulting findings can be readily incorporated into discussions of occupational attainment inequality by scholars with different epistemological backgrounds and research agendas.

The results presented here support previous findings of the significant effect of human capital accumulation for predicting occupational status differentials between ethnic groups. In addition, results also show the moderation effects of English fluency, legal immigrant status, and education origins discussed in the literature. However, once respondents are grouped by ethnic origin, and interactions between main predictors are

factored in, three main patterns of the racialization of ethnicity emerge. First, immigrant workers with a low level of education are more likely to have occupational status scores that differ relatively little from natives', regardless of English fluency or legal status. This suggests that, in aggregate terms, the low skill segment of the labor market is rather inclusive and, in a sense, seems to adhere well to conventional conceptions of free labor market ideals. Second, as educational attainment of workers increases, the labor market becomes less impartial and the negative effects of discrimination are increasingly manifested for racialized immigrant ethnic groups, especially Mexicans and Central Americans. Third, and finally, the moderating effects of indicators of assimilation, namely, English language proficiency and legal immigrant status, on socioeconomic status are highly dependent on workers' level of education and ethnic identification. While highly educated Asian and European immigrants reap the rewards of being fluent in English, independent of their legal immigration status, highly educated Mexicans and Central Americans are not rewarded for their fluency in English and are penalized excessively for being undocumented. These trends strongly suggest that the U.S. labor market is not only stratified by human capital achievement, fluency in English, and access through immigration documentation, but also by the subjective negative preconceptions that employers, coworkers, and clients have about the ethnically racialized work force.

The paper is structured as follows. The first section defines the main concepts and theoretical principles; reviews the literature on labor market outcome differentials from which two main hypotheses are derived. The second section, describes the data and methods utilized. The third and last section, presents a discussion of the implications suggested by the study's findings and draws some general conclusions.

ANALYTICAL BACKGROWND

Before delving into theoretical, methodological, and analytical discussions, I provide the definitions of the main sociological concepts, utilized in this paper. *Ethnicity* is defined by Martin N. Marger as a socially constructed categorization applied to groups within a larger society that are usually bound by "unique culture, sense of community, ethnocentrism, ascribed membership, and territoriality" (2003:15). Of special relevance to this paper is the territorially based sense of community that set the boundaries of the twelve ethnic groups included in the analysis. For the native-born, a real or imagined common ancestry served as a delimiter, and for immigrants, their continental region of birth. Next, *Racialization*, is a highly contested concept in sociological theory and practice (for a thorough overview of the term's history and development see Murji and Solomos 2005) and as such, it needs to be carefully defined. I use racialization as a concept free of racial meaning in its conception but with the shared effects of racist practices. In accordance, the race construct as an analytical concept in this paper is deliberately excluded from the framework as the ethnic categorization is seen to subsume it (Bonacich 1972:548). Floya Anthias and Nira Yubal-Davis, argue that linking the racialization process to only the social construction of race and its implications would "exclude the experiences of immigrant ethnic groups […], which construct them as inferior, but not on the premise of a supposed racial categorization, but as cultural, political or national outsiders and undesirables" (1992:11). Departing from Anthias and Yubal-Davis, I propose that the removal of race from the definition of racialization is not tied only to a construction of inferiority and undesirability, as this misses the *model minority* phenomenon. Thus, racialization is the process of essentializing

groups on the basis of assumptions about its members' positive or negative physical or cultural variations, the meanings of these perceptions, and their concomitant effects. *Racialization of Ethnicity* is, then, the process by which stereotyped traits and expected behaviors are attributed to groups that share a common immediate or historic geographic origin and are deemed inferior or superior, undeserving or deserving, and undesirable or desirable.

The theoretical framework guiding this study evolved from the field of economic sociology of immigration introduced by Portes, Roberts, Sassen, and Granovetter among others in their 1995 seminal book titled after the field's name (Portes 1995). The authors challenged the neoclassical economic notions of a rational and impartial value-free labor market providing extensive theoretical and empirical evidence of the strong influence of the social environment on economic decisions, experiences, and outcomes of labor market participants. However, the Weberian and Schumpeterian principles bridging the economic and the social schools of thought in Portes' volume tend to remain partial to the moral virtues of economic actors rather than exposing their sometimes irrational and prejudicial nature. As indicated by Merton in his foreword and replicated by the authors throughout the book, Schumpeter went "to some pains to exclude ethnic variation in his analysis of class formation" (Merton in Portes 1995:vii). The result of steering away from acknowledging the role of ethnic discrimination on uneven labor market outcome trends results on an economic sociology of immigration that places most of its explanatory power on social and cultural capital differentials between immigrant groups; which tends to engage authors in "blaming the victim" narratives.

Labor market discrimination towards racialized Latino populations has been evidenced by quantitative (Bohara and Davila 1992, Espino and Franz Michael 2002, Telles and Murguia 1990) and qualitative (Donato, Stainback and Bankston in Zúñiga and Hernández-León 2005:73-103) research. However, despite these efforts, the emphasis on the supply side of the labor market is still predominant. In order to deconstruct workers as the sole social agents responsible for their fate in the labor market, I complement the analytical reach of the economic sociology of immigration by including the agents with the capacity and capability of engaging in significant exclusionary practices within the labor market, namely employers and clients. To do so I employ the principles of Giddens' theory of structuration, which posits that, "structural properties of social systems exist only in so far as forms of social conduct are reproduced chronically across time and space" (Giddens 1984:xxi). Adjusting this philosophical approach to the specific inefficiencies of the labor market, I propose that the patterned and predictable occupational status inequalities that immigrant workers from disparate ethnic groups experience, result from the temporal and spatial cumulative effect of employers' actions and behaviors at the individual and institutional levels. These actions and behaviors are informed and inform the day to day interactions between employers and employees and the social context they occupy, which in turn are subject to racialized perceptions of "the other" that negatively or positively affect the access to, and outcomes of, labor market participation. The main thesis that I propose is, therefore, composed of three premises that encapsulate the cyclical progression of the racialization phenomena as a structured positive feedback loop. First, the cumulative essentialization of certain groups by dominant social agents has resulted in an increasingly ethnically racialized U.S. social context. Second, this ethnic racialization percolates and

affects the labor market as an institution embedded in a U.S. social system conformed, in some part, by agents of racialization. This racialization may be positive or negative and it influences the selectivity of recruiting workers, how they are perceived, and how they are compensated in the labor market accordingly. And third, the socioeconomic outcomes of a partial labor market affect racialized immigrant minority groups in a patterned and measurable manner. For negatively stereotyped ethnic groups racialization further decreases their occupational status attainment. For positively racialized ethnic groups labor market outcomes may even surpass those of the dominant group. Hence, racialization of ethnicity reinforces the negative or positive stereotypical perceptions about ethnic groups that constantly fashion and refashion the social constructions of their members at the different levels of social interaction, from the individual to the broader social context.

Variability Of Outcomes In The Labor Market

Differences in labor market outcomes have been thoroughly researched. Studies have been informed primarily by two schools of thought: those that focus on a "rational" labor market, where the characteristics of the labor force are the primary source of variation; and those that explore the "irrational" mostly unobserved characteristics of employer behavior as an important factor in market outcome discrepancies. Convergence between these two schools of thought can be traced back to over 60 years ago, when economists such as Gary S. Becker, in 1957, and Kenneth Arrow, in 1973, started modeling the irrationality of labor market discrimination within the assumptions of a rational profit-seeking neoclassical paradigm (Arrow in Ashenfelter and Rees 2015:3-34, Becker 1971). Sociologist responded by pointing out the limitations of assuming neoclassic simplifications

when analyzing complex social relationships, especially with regards to multiple ethnic groups (Reder in Ashenfelter and Rees 2015:34-42) or ethnic antagonism in wage differentials (Bonacich 1972). This resulted in an ongoing epistemological division that, interestingly, did not split the camps by disciplinary affiliation but rather lured most quantitative sociologist towards considering rational justifications rather than irrational behaviors as explanatory variables of the variation of labor market outcomes (perhaps influenced by heavy critique from authors such as Smith 1990). This division, I argue, is not delimited by contrasting methodological selections and theoretical formulations, but rather by the attribution of responsibility for outcome discrepancies to either the supply-side (personal endowments or contextual differences) or the demand-side (employer and institutional subjective tastes or preferences) of the labor market. I consider this often ignored epistemological dichotomy to be of great academic, political, and societal relevance, as it guides how research is conducted and interpreted, how policies are designed and applied, and how people construct their perceptions of the "other" within and outside the labor market.

Research supporting supply-side correlates dominates academic developments. Specific to immigrants in the U.S. labor market, immigration economists tend to maintain the ideological principle of a rational labor market, and focus on the endogenous human and cultural capital characteristics of immigrants—educational attainment, skills, work experience (for opposing sentiments towards immigration that, nevertheless, share the same neoclassical assumptions see Borjas 2014, and Card and Peri 2016). Other economists expand on the explanatory power of personal endowments by adding language as the main indicator of assimilation and occupational success (Chiswick and Taengnoi

2007, Day and Shin 2005, Lewis 2011). Most economic sociologists and economic geographers acknowledge that the labor market is imperfect, they account for the relevance of personal endowments, but give primacy to contextual exogenous factors such as geographic differences as predictors of economic integration (Sassen in Portes 1995:87-127, Stolzenberg 1990). Sociologists have also contributed to this literature by integrating structural characteristics that affect group's outcomes differently, such as social and cultural capital (Aguilera and Massey 2003, Hall and Farkas 2008, Fernandez-Kelly in Portes 1995:213-47). Regardless of their analytic approach, methodology, or disciplinary affiliation, authors from the above-mentioned disciplines tend to share an understanding of the labor market in which employers are seen as impartial and their actions isolated from affecting their employees' occupational status achievement. For example, Borjas dismisses discrimination against immigrants in the U.S. labor market as a phenomenon unique to underdeveloped countries of origin. To him, Mexican immigrants' poor economic outcomes "could have been the result of social, cultural, and economic barriers that they faced [back in Mexico]—barriers that might perhaps disappear after they moved to the United States" (Borjas 2016:82). Aside from the clear misconception that the U.S. economy may not impose social, cultural, and economic barriers on Mexican immigrants; the previous quote implies that since Mexicans workers come from a socially, culturally, and economically inferior country, their skills and capabilities are, in consequence, also inferior. This *inferiorization* of the Mexican and Latino workforce is key to their racialization in the broader social context (Anthias 1992, Murji and Solomos 2005:13).

Research that evaluates labor outcome variation as a function of unobserved demand-side inefficiencies is significant in its findings but less abundant in the literature

(Goodwin-White 2008, Reimers 1983). The main difficulty limiting researchers is quantifying the role of employers in labor market outcome discrepancies. Therefore, most research of this phenomenon focuses on pre-hire labor market interactions measured as discrimination of immigrants at either the time of granting legal documentation for employment (Rissing and Castilla 2014) or at the time of job applicant selection and hiring (Bertrand and Mullainathan 2004, Pager 2007). Research on the racialization of ethnicity in the U.S. labor market has, consequently, depended on scarce qualitative studies that, although highly informative, are geographically constrained and suffer from sampling bias reducing their generalizability (Smith 1990).

This paper's major contribution to the literature is to address and mitigate immigrant labor demand-side limitations. Using quantitative analysis that controls for the main correlates suggested by labor supply-side literature, I propose that the residual occupational-status inequality can be interpreted as an indicator of labor demand subjectivities. With this aim in mind, I posit two main hypotheses that guide my analysis. First, *human capital and demographic characteristics are awarded or penalized at significantly different rates across ethnic groups in the U.S. West Coast labor market, which is partially influenced by the racialization of ethnicity (between-group differentials)*. Second, *labor market discrimination is not only evident at the between-group level*, *where some groups are constructed positively and others negatively*, *but also within ethnic groups, where the personal endowments of group members are awarded or penalized in patterns directly related to their degree of racialization (within-group differentials)*.

I use a well-established occupational status score to estimate the effect of ethnicity on labor market outcomes. I include the influence of worker's observed characteristics,

such as productivity-related personal endowments, as independent variables. Variace in the coefficients of these ascribed and acquired traits and their interactions is measured by their effect on the occupational-status dependent variable. Estimated variance comes from workers' observed characteristics and employers', clients' and coworkers' unobserved discriminatory actions. In the following section, I describe the operationalization of the two hypotheses, the data used for the analysis, and the methodology.

DATA

Data come from the pooled 2008-2013 1% American Community Survey (ACS) provided by the Integrated Public Use Microdata Series (IPUMS) (Ruggles et al. 2017). The region of analysis includes the Western U.S. States of California, Nevada, Washington, and Oregon. This region was selected for being a major recipient of immigrants from all ethnicities with very different labor endowments. For example, the Silicon Valley in California, and Seattle in Washington State attract highly educated European, Chinese, Indian and Mexican immigrant workers; while, the California Central Valley, Washington State's Yakima Valley and Nevada in general attract a significant amount of low-skilled Mexican agricultural and service workers. After data cleaning and preparation, this subsample includes harmonized data on over two million observations, of which a subpopulation of 1.58 million is included in the final analysis. This universe consists of men and women aged 16 to 65 who had worked the previous year to the survey[1]. Analysis is representative of an estimated pooled population of 166 million across the six survey

[1] Although most research on labor market phenomena restricts the sample to those aged 25 to 65 and not in school I want to measure the occupational status at all stages in the career path captured by the Nam-Powers-Boyd occupational status score.

years. Variance is calculated using replicate weights provided by IPUMS, which reflect the complex survey design of the ACS[2].

The outcome variable for the study is the Nam-Powers-Boyd (NPB) occupational status score, 1990 basis. It is a scale from 0 to 100 that approximates the percentage of labor force participants with a combined level of education and income below each occupation defined by the U.S. census. The scores given to ACS occupations are provided by IPUMS and were calculated according to Nam and Boyd (2004). This scale gives equal weight to educational attainment and earnings, is independent of occupational definition changes, and is void of subjective interpretations of prestige and social standing as compared to other socioeconomic indexes such as Duncan's or Hauser-Warren's. In this regard, the NPB score avoids categorical measures of status that draw their boundaries arbitrarily following researcher choices and instrumentally biasing the results. This is particularly evident in occupational skill research, where "high skill" and "low skill" categorizations reflect the preconceptions of the social scientist about different occupations, which are then unavoidably transmitted to their findings. To avoid this bias while maintaining a sense of stratification, I use the NPB score, which, in comparison, is obtained using only mathematical manipulation of census count data to provide a "pure socioeconomic" scale (Nam and Boyd 2004:333).

[2] A secondary dataset of Mexican Consular Identification Applicants in Sacramento, California was used to validate the construction of an undocumented population in the ACS. These data are collected when Mexican natives apply for a Consular ID at Mexican Consulates and include information on their education and occupation. These data are widely accepted to include mostly undocumented immigrants, as only people without U.S. documentation benefit from acquiring a Mexican Consular ID. The selection of sample years from the ACS matches the available years of the Consular ID data for comparison. Descriptive comparison of both datasets (Figures A1 and A2) reveals that an important segment of the undocumented population is not captured by ACS data, which biases against those undocumented immigrants with the lowest mean occupational status.

The data is grouped according to *Ethnic Origin*. This variable conceptualizes people in the racialized U.S. context, where natives' identities are constructed from racially based ancestry, and immigrant identities are constructed from their immediate geographic origin. Thus, ethnoracial categories of US-born individuals are operationalized to represent their hyphenated ancestral ethnic origin. Summary statistics of the variables used in the analysis grouped by ethnicity are provided in Table 1.

TABLE ONE ABOUT HERE

Descriptive Findings

ACS data summarized in Table 1 reveals that among the U.S.-born groups, those of European and Asian origin have the highest average occupational status scores and those of Latino origin have the lowest. Remarkably, European, African, and South American immigrants have higher average occupational status scores than their native-born co-ethnics. This preliminary finding may support notions of immigration that claim that some migrants, especially European and Asian, have unique characteristics that make them more productive and therefore more successful in the host labor market. With European and Asian immigrants scoring over 54 points, they, on average, are in occupations that are ranked over 10 points higher than native Latinos, and almost 20 points higher than Latin American immigrants (after averaging the scores of the three Latin American ethnic groups= 35.7). These differences between ethnic groups are very significant in the socioeconomic standing of workers. Mexican immigrants have the lowest average NPB occupational status score (26.8), which is equivalent to a barber (NPB 26) as compared to say, a mapping technician (NPB 57), the equivalent to the European and Asian average. While these results may suggest the racialization of ethnicity, the influence of other

predictors of occupational status is also evident. Differences in educational attainment, English language proficiency, and legal status across ethnic groups mirror the trends of occupational status scores. Asian groups' share of members with a college degree or higher is three times higher than that of Latino-Americans, and ten times higher than that of Mexican immigrants. While half the Asian immigrants have a college degree or higher educational attainment, only 5 percent of the Mexican immigrants do. Over 70 percent Mexican immigrants do not speak English fluently, while 79 percent European immigrants do. Interestingly, South American immigrants have better English skills than Asian immigrants despite having a lower average occupational status score. With regards to legal status, over 80 percent of all non-Latino immigrant groups have legal documents, while 61 percent Central American and 54 percent Mexican immigrants do. From this descriptive profile it is plausible to conclude that occupational status variation is determined more by the characteristics of the labor supply than on discrimination from those who demand it. However, while bivariate descriptions provide some context of the form, direction and strength of association between independent variables and the dependent variable, they do not consider how these predictors vary together. Multivariate analysis is then required to have a more holistic idea of the relationship.

Analytical Approach

I divide the analysis in three stages that include the occupational status predictors. The stages include an educational attainment stage, a labor market access stage, and an ethnic origin stage. These stages are operationalized using a three nested-model approach and analyzed using multivariate ordinary least squares regression (OLS). A nested OLS model is the most appropriate instrument for analyzing the NPB dependent variable, for it

is continuous and ranging from 1 to 100. Moreover, coefficients from OLS regressions are easily interpretable. Mean scores from single males in California with less than a high school diploma surveyed in 2008 provide the group of reference. In the full model, being US-born and white (European-American) is added to these parameters. Although this method of quantitative analysis is well accepted by social scientists, it is not without its flaws. First, only easily measurable and publicly available independent variables can be used. This may result in missing important predictors in the analysis, such as personality traits, social capital, and luck. Second, the actual process of discrimination is not measurable by this method, only its outcome, resulting in inferences with a high degree of speculation. Nevertheless, considering the many limitations, this study provides a "good enough" model in the standard by which statistical models are measured in the social sciences.[3]

Empirical Model

The first stage of the nested model, Table 2 (Model 1), includes demographic, temporal and spatial information that serve as controls for the independent variables. This stage includes *Educational Attainment* as a categorical variable coded as: (1) Less than High School Diploma, (2) High School Diploma, (3) Some College, (4) College Graduate and Postgraduate Education. As has been noted, education is one of the strongest predictors of occupational status (Friedberg 2000) and it is, therefore, chosen to guide further analysis.

The second stage (Model 2) nests Model 1 by adding immigrant-specific characteristics that are considered to be detrimental for occupational status attainment.

[3] For a discussion of what constitutes a "good enough" model, a "best" model, and the "correct" model see Cheng J, Edwards LJ, Maldonado-Molina MM, Komro KA, Muller KE. Real Longitudinal Data Analysis for Real People: Building a Good Enough Mixed Model. *Statistics in medicine*. 2010;29(4):504-520. doi:10.1002/sim.3775.

Lack of English fluency, and attaining all education abroad are operationalized as controls, and lacking legal status is chosen as the explanatory variable. The ACS provides five English proficiency categories in the *speakeng* variable. U.S. Census research suggests that the only two English proficiency adjacent groups that demonstrate a significant gap in earnings are those who speak "very well" versus those who speak "well" (Day and Shin 2005:6). Following this finding, researchers of occupational status attainment dichotomize the English language proficiency and have found English fluency to be a highly influential predictor of occupational status (Chiswick and Taengnoi 2007, Day and Shin 2005, Lewis 2011). As this stage incorporates immigrant specific disadvantages in occupation status attainment, I construct a *Not English Fluent* dummy. I dichotomize the original *speakeng* variable and code it 0 if the respondent speaks only English or speaks it "very well", and 1 otherwise. Source of educational attainment is an important predictor of occupational status attainment (Friedberg 2000); it is dichotomized as 1, *Educated Abroad*, and 0, education attained in the U.S. Since this information is not included in the ACS dataset, I calculated it following Chiswick and Taengnoi (2007), where education is assumed to be attained continuously from age six , so "if age at migration is greater than the years of schooling plus six, it is assumed that all schooling took place abroad" (Chiswick and Taengnoi 2007:23)[4]. Legal status has also been shown to have a significant effect on labor market outcomes (Hall and Greenman 2015, Rissing and Castilla 2014). The "Naturalized

[4] Contrary to Chiswick and Taengnoi's (2007) findings, and in agreement with Friedberg (2000), I find that the source of education is a significant predictor of occupational status. Chiswick's contradictory findings may be related to the model design. Chiswick used a multinomial logistic regression on broadly and arbitrarily defined high skill occupational categories, removing the hierarchical structure of the outcome variable (all occupations are assumed to have the same socioeconomic status, since they are all labeled "high skill"). This results on the counterintuitive notion that "odds of being in a certain occupation do not vary with the source of education, other things being the same" (Chiswick and Taengnoi, 2007, p.23). An OLS regression of the hierarchically defined NPB dependent variable demonstrates significant unit changes influenced by educational source differentials.

Citizen" category within The *Citizenship* variable in the ACS is the only indicator of immigrant legal status. However, there is no variable that distinguishes non-citizen legal residents from unauthorized immigrants. To estimate an undocumented population researchers use *Logical Edits* and *Probability Edits* (Pastor and Scoggins 2016); which consist on drawing available information from the dataset that is likely to qualify non-citizens as legal permanent residents (LPRs). For example, being in the military, receiving most types of government assistance, immigrating before 1982 or being Cuban are all characteristics of LPRs. After running the logical edits, the remaining non-citizens form the *Undetermined Legal Status*[5] identifier used as the last explanatory variable in this stage[6].

The third stage (Model 3) adds the *Ethnic Origin* variable to determine how occupational status is influenced by ethnic group membership once I control for all other factors. Following the theory of ethnic antagonism (Bonacich 1972), for the U.S.-born population I use U.S. Census racial categorization to construct ethnic groups from their continental ancestral origin. For immigrants, their place of birth at the continental scale defines their ethnic group. U.S.-born groups are labeled using their hyphenated ethnicity, hence, Non-Latino whites are labeled *European-American,* blacks are labeled *African-American*, Asians are labeled *Asian-American*, and Latinos of all races are labeled *Latino-*

[5] Previous research from Pastor and Scoggins (2016) go further by calculating *Probability Edits*. These use a separate dataset that includes indicators of legal residence to calculate the probability of being undocumented, and through multiple imputation of missing values or applying logistic coefficient estimates (Pastor and Scoggings, 2016), they assign a legal status to non-citizens not captured by the Logical Edits. I avoided this step as it is based on the assumption that undocumented status is a homogeneous statistically transferable characteristic between differently designed and gathered datasets, which is highly unlikely.

[6] I refrain from labeling this resulting group as "undocumented immigrants", since a Wald Test comparing this subgroup to the Mexican Consular ID data, which is assumed to be comprised mostly of undocumented Mexicans (Massey, Douglas S., Jacob S. Rugh and Karen A. Pren. 2010. "The Geography of Undocumented Mexican Migration." *Mexican Studies/Estudios Mexicanos* 26(1):129-52. doi: 10.1525/msem.2010.26.1.129.), shows significant differences between the two groups in both educational and occupational skills (Figure A1 and A2).

American, and all other ethnoracial categories, including Native-Americans and those who identify as mixed-race, are labeled *Other-American*. Immigrants are divided into *Europeans*, *Asians*, *Africans*, *South Americans, Central Americans,* and *Mexicans*. Mexican immigrants are included as a separate ethnicity due to the size and influence of this immigrant population in the U.S. context of ethnic racialization. The full model (Model 3) provides the occupational status variation as influenced by all the independent variables concomitantly in the three stages.

TABLE 2 ABOUT HERE

EMPIRICAL ANALYSIS

Main Effects

Model 1 in Table 2 shows the temporal and spatial influence on the NPB occupational status score. All surveyed years did worse than the 2008 reference, and living outside of California decreases the average occupational status attainment, all other things equal. Model 1 also reaffirms the importance of educational attainment, as having college degree or more education (46) more than triples the effect of just having a high school diploma (14), and almost doubles the effect of attending some college (24); when having less than a highs school education is the reference category and all other factors are controlled for. Adding immigrant-specific negative qualifiers in Model 2 and ethnic group identifiers in Model 3 increase the explanation of the variance. Increments in pseudo R^2 are significant with F (3, 79)= 16236.8, $p< 0.001$ for Model 2 and F (11, 79)= 1121.80, $p< 0.001$ for Model 3. After holding all other occupational status predictors constant in Model 3, immigrants from Africa, South America, Central America and Mexico, on average, have the lowest occupational status scores. African-Americans are the worse off of all U.S.-born

groups. Their occupational status score is, on average, four points lower than that of European-Americans. US-born Latinos also do worse than European-Americans. However, the latter's effect is eclipsed by that of their immigrant counterparts from Mexico, whose score is almost six points lower than that of European-Americans, *ceteris paribus*. The only native ethnic group that, all else being equal, has a higher average occupational score than the reference group is Asian-Americans. On the other hand, Europeans are the most likely to have the highest average occupational scores among all immigrant ethnic groups, followed by Asians, when all else is controlled for.

The models in Table 2 also show that when we include ethnic group identification, variables traditionally used by economists to predict occupational status variability lose their explanatory strength, while those predictors that have received less scholarly attention increase in magnitude. As previously indicated, in Model 1, as expected, college graduates are more likely to have a higher occupational status score than those with less education, and exhibit the highest average positive regression coefficient magnitude, all other things being equal. Conversely, from Model 2, immigrant characteristics that limit these groups' labor market access, especially lacking English fluency, significantly reduce their occupational status achievement when other factors are set equal. However, when we include ethnic group membership the effects of these main occupational status predictors weaken. Specifically, the average effect of college education drops by 24 percent and the negative average effect of not speaking English very well drops by 14 percent after controlling for all other factors. On the other hand, covariates generally taken as controls in the literature become more influential when we account for ethnic differences. Living outside of California, being a woman, or acquiring all education abroad result in more

average negative effects on occupational status when the ethnic origin categorization is included.

In tune with structuration theory, the models show that spatial and temporal variables are important predictors of occupational attainment. On average, and controlling for all other factors, living in California increases the likelihood of having a higher occupational status, which could be related to the types of jobs available for immigrants in the state and the high selectivity of the California labor market. We can also see some of the effects of the 2008 great recession in the decreasing average status achievement of the population at each survey year; showing slow recovery in 2013.

Based on these findings one can plausibly conclude that my first hypothesis is supported (*Ethnic discrimination affects between-group occupational attainment discrepancies*). However, skeptics of the racialization of ethnicity phenomenon could argue that the main effects shown in Table 2 do not account for the interactions between predictors, and that main regression effects are not enough to establish valid inferences. Intuitively this argument makes sense. Studies have shown that language fluency affects various skill-level workers differently, and that legal status also has different effects depending on educational attainment. To address these potential shortcomings, I ran a four-way interaction model among the main predictors: legal status[7], educational attainment, English Proficiency, and ethnic origin. The postestimation predictive marginal

[7] To include the effects of the different nativity and immigrant legal status categories in the interacted model I use the *Citizen* variable in the ACS and recoded "non-citizen"s to include the "undetermined legal status" identifier obtained by logical edits.

contrasts of this fully interacted model are displayed in Figure 1[8]. These results demonstrate that, contrary to previous accounts, immigrant ethnic groups do not show the same returns to their "human capital investments". Evidently, immigrants from some ethnic groups, regardless their formal level of education and English proficiency are penalized rather than rewarded in the higher skill segments of the U.S. West Coast labor market. An explanation of the linear predictive margins graph and analysis of its findings follows.

FIGURE 1 ABOUT HERE

Interaction Effects

Interactions between the 4 predictors of interest are used to answer the question: in terms of occupational status attainment, how does the effect of ethnic group membership and immigration legal status depend on respondent's educational attainment, and fluency in English? A brief answer is that the higher the education, the more determinant between- and within-group differential become. Within-group variance is particularly influenced by English fluency and legal immigrant status. I provide a graph in Figure 1 to visualize the complex relationships uncovered by the four-way interaction effects, and by presenting the findings as contrasts of the predictive margins, I am able to better capture these effects. Figure 1 plots the occupational status outcomes of the different ethnic groups by legal status and English proficiency. It divides the population into four subgroups each representing an educational attainment category. The zero gridline in the Y-axis represents the linear predictive margin of European-Americans' occupational status score. The further

[8] The output from this model is extensive. A table including main and interacted marginal effects can be supplied upon request.

a point is from this line, the larger the difference between the group's predictive margin and the reference group. Capped spikes represent confidence intervals at 95 percent, when these cross the zero Y gridline, the difference in outcome between the ethnic group and reference group are statistically insignificant[9]. As a visual aid, I also provide gridlines in the X-axis that represent the boundaries of each ethnic group, so that one can easily see the within group variability given by different legal status and English proficiency.

At first glance, Figure 1 reveals striking differences in the predicted marginal occupational status achievements between European-Americans and ethnic groups across educational categories, validating education as the main source of outcome variance. However, the impact of the education effect is not what most scholars would expect. The higher the education, the more disperse the predictive margins between the groups and European-Americans are. In a sense, education is the great un-equalizer, as trends in the interactions between the predictors get amplified with each increase in level of education. More importantly, the higher the educational attainment the larger the contrast within and between groups, as the vertical spread of the points increases overall.

This vertical spread results from the interaction between education and language, which gives support to the literature on the importance of English language proficiency in labor market outcomes. However, this interaction does not result in a similar trend for all groups (see Figure 2). Highly educated European and Asian immigrants that speak English fluently have higher occupational status scores on average than highly educated European-

[9] The interacted model required the re-declaration of survey parameters (weight, strata, and primary sampling units (PSUs) instead of using the balanced repeated replication (BRR) utilized in the nested model. Stata ,when calculating margins does not support the BRR method of standard error estimation; hence, the less robust delta method of linearized variance estimation was utilized.

Americans, after controlling for all other factors. In contrast, although non-naturalized Mexican and Central American immigrants that speaking English fluently enjoy a slight occupational status advantage over their non-English fluent counterparts, this language premium is not nearly enough to bridge the average occupational status gap between them and European-Americans.

The interaction between educational attainment and immigration status can be derived from simultaneous changes within ethnic group predictive margins in the X- and Y-axes. This results in a negatively sloped diagonal tendency for most immigrant ethnic groups (declining immigration "legality" corresponds to decreasing occupational status achievement, all other things equal), validating the importance of legal immigrant status on occupational status achievement. As with English fluency, the general trend is highly influenced by differences in educational attainment (see Figure 1). Among the least educated, immigrants with undetermined legal status are less penalized or, as it is the case with European immigrants that speak English fluently, even do better than European-Americans. As educational attainment increases, however, the negative effect of not being a naturalized immigrant or a permanent legal resident on occupational status attainment gets amplified. This trend is epitomized when we see that the worst off subgroups, in terms of predictive occupational status margins differences with European-Americans, are non-naturalized *highly-educated* Mexicans and Central Americans that do not speak English fluently. These findings provide support for my second hypothesis, that *within group endowment differences affect groups' occupational status differently*, as illegality and lacking English fluency have a significantly more negative effect for Latin American immigrants, most especially Mexicans and Central Americans.

DISCUSSION

The implications of the findings presented in the previous section are surprising and concerning. To begin, they strongly suggest ethnic discrimination in the U.S. West Coast. The material consequences of this discrimination is not only evident in labor market outcomes but in academic debates and the broader social context. Historically, as the "grand mixer of peoples" (Hughes 1949), the labor market has been characterized by segregationist and discriminatory practices. Although there is evidence of desegregation in the labor market since Title VII of the Civil Rights Act (Tomaskovic-Devey et al. 2006), it is evident that the increase in diversity and representation of historical minorities in the labor market does not signify that it is a social institution free of discrimination. Labor market relationships between those who demand labor and those that supply it are deeply affected by the social structure that embeds them. The negative perceptions of the Latino ethnicity have spillover effects on immigrants who would otherwise be desirable and productive workers due to their high education, legal documentation, and English proficiency. To uncover this prevalent discriminatory environment, I reveal that, after controlling for demographic, geographic, temporal factors and more importantly—level of education, legal status and English proficiency—Mexican and Central American immigrants have the lowest average occupational status scores of all ethnic groups. This, I argue, is a consequence of the racialization of Mexican and Central American ethnicity, which supports the growing body of literature on the creation of a Latino underclass (De Genova

2004, Massey and Pren 2012). To showcase this phenomenon more tangibly the linear marginal prediction contrasts between European-Americans and immigrants with the same level of education and varying English fluency and immigrant legal status are examined in detail next.

Select Findings

First, the effect of English fluency is measured among highly educated immigrants with undetermined legal status. As Figure 2 shows for Asians[10] and Europeans within this subgroup English fluency is rewarded with a 5 and 6 point premium respectively, while non-fluency is penalized with a -6 and -12 point deduction respectively after controlling for all other factors. In contrast, for Mexicans and Central Americans in the subgroup, English fluency does not improve their outcomes over European-Americans' as they, on average, score 16 and 14 points lower in their marginal predicted occupational status contrast (see Figure 2). What is truly shocking is that Mexicans and Central Americans within this group suffer an occupational status penalty over *six times larger* (-36 and -37 points respectively) than their Asian and European counterparts.

FIGURE 2 ABOUT HERE

Second, I explore the effect of immigrant status on occupational status attainment by only focusing on non-naturalized immigrants that are highly educated and speak English fluently, the only varying characteristic is their legal status—being legal permanent

[10] Since Indians and Chinese were awarded about 60% of the H-1B visas available to foreign workers from 2001 to 2015, totaling over one million between the two countries (Pew Research Center 2017 http://pewrsr.ch/2qbBwGn), they are certainly overrepresented in the "undetermined legal status" category. However, rather than seeing this as detrimental to my findings, I interpret this as showing the selectivity practices of the U.S. government officials giving preference to immigrants of some nationalities over others.

residents or having an undetermined legal status. Asian and European immigrants within this subgroup that are LPRs are rewarded on average with 7 and 6 point respectively over European-Americans (see Figure 3). Interestingly, in this subgroup Asian and European immigrants are not penalized for having an undetermined legal status; they are in fact awarded about the same average score as if they were LPRs (5 and 6 points respectively). Put simply, regardless of their legal status, non-naturalized Asian and European immigrants, on average, fare better in the U.S. West Coast labor market than European-Americans. For Mexicans and Central Americans the opposite is the true. Having an undetermined legal status, on average, doubles the negative effect (-16 and -14 points respectively) of their already negative difference (-8 and -7 points) with European-Americans' occupational status scores, after controlling for all other determinants (see Figure 3).

FIGURE 3 ABOUT HERE

Patterns

The patterns of labor market discrimination synthetized from the previous examples and the results shown in Figure 1 are clear. For Asian and European immigrants the subjectivity of the labor market is shown to work in their favor bringing to mind model minority and middleman minority narratives (Hirschman and Wong 1986, Sakamoto, Goyette and Kim 2009). For Mexicans and Central Americans discrimination has devastating effects, strongly suggesting the racialization of their ethnicity. In general terms, being a racialized Latino: can diminish the human capital gains from higher education that Borjas (2016) exalts; can nullify the language premium found to be so

significant by Chiswick and Taegnoi (2007) and Lewis (2011); and can erases the benefits of becoming a legal permanent resident discussed by Rissing and Castilla (2014). That Mexicans and Central Americans do worse in every regard than all other ethnic groups when other factors are set equal is the most tellingly factor about the impacts of the racialization of and entire ethnic group, a process that, as structuration theory suggests, is not linear and produces and reproduces discrimination at the individual and institutional levels, across time and space in a positive feedback loop. As such, the racialization of Latino ethnicity has consequences that expand beyond the labor market social institution.

Implications

In a political environment increasingly deterministic about who is deserving or undeserving, about who belongs and who does not; racialized immigrant groups pay the price for the discriminatory constructions of their identity and worth. Before even entering the labor market, the racialization of their identity has lasting effects on their ability to succeed in the host society. Rissing and Castilla (2014) show how government agents from the U.S. Department of Labor engage in discriminatory practices by denying permanent work visas to suitable applicants from Latin American countries at a higher rate than applicants from other nationalities, after controlling for key factors. Once in the labor market, Latino workers are imagined as low skilled, unproductive, and a burden to native workers (Borjas 2016). Since Latinos are the most numerous immigrant group in the West Coast labor marker their exclusion from equal market gains affects the socioeconomic status of the population as a whole. Mexicans and Central American immigrants exhibit higher levels of poverty, geographic segregation and social exclusion. Aside from the

negative socioeconomic consequences of Latino racialization, this ethnic group also suffers from mental health disorders resulting from high rates of perceived discrimination (Pérez, Fortuna and Alegria 2008).

In the academic sphere the effects of preconceiving Latinos as an inferior group in the study are also evident and result in dire consequences for this population. Aside from the explicit racialization of Latino immigrants demonstrated by Borjas "uniformly dismal view about immigration" (Card and Peri 2016:22), a more subtle form of discrimination in research finding interpretation and explanation can be perceived with careful inspection of the literature. Surprisingly, studies that are framed and showcased as uncovering discrimination against certain groups are filled with stereotyped assumptions that reflect the researchers' subjective construction of the Latino population. Many of authors reviewed lessen or completely dismiss the role of employers by either simplifying relationships by removing them from a historical context, or proposing overly complex explanations in order to circumvent evident findings of discrimination. One example is given from Stolzenberg (1990) in his analysis of occupational achievement of Latino men in the U.S. finds strong evidence for discrimination after controlling for key variables and geographic distribution—"for not speaking English very well, [Latinos] pay roughly twice the penalty in SEI paid by white non-[Latinos], and the Latino disadvantage in earnings and weeks worked is even larger" (1990:151). This finding, however, does not compel him to fully internalize the role that discrimination plays in penalizing Latino ethnicity as he follows with, "this greater penalty may result from unmeasured correlates of poor English fluency among white [Latinos] but not among other whites" (1990:151) Further into his discussion, Stolzenberg argues that "selective migration might produce unusual

educational or occupational distributions of ethnic groups in the United States, but those effects would not be directly due to ethnicity"(1990:152). Evidently, Stolzenberg assumes that his findings are not rigorous enough to support a theory of racialization of ethnicity, and to him, the selectivity against a specific group, all other things being equal, is free from discriminatory practices against Latinos (seeRissing and Castilla 2014 who reject Stolzenberg's assumption). These subtle discriminatory practices result in a myopic, ahistorical and decontextualized analysis that, at best, normalizes government discriminatory practices and at worst, feeds into the rhetorical nationalistic discourses of exclusion that have gained prevalence in the current political culture.

Future Research

Further research on the racialization of Latino ethnicity is important in order to address the dire consequences of the phenomenon discussed in the previous section. Strictly quantitative data analysis has many limitations. As pointed out by Justus Veenman, "as the method aims at revealing the existence of discrimination, another drawback is that it provides us with product variables rather than process variables. It is therefore not possible to acquire information about the actual discrimination acts, let alone information about the motives behind these acts" (Veenman 2010:1809). Still, revealing discrimination by quantifying its impact on all major ethnic groups in the U.S. West Coast labor market, is a worthwhile endeavor that can have significant implications in future debates and research on labor market discrimination.

To capture the process of racialization rather than merely the outcome a mixed-methods study in which a survey of discriminatory practices from both labor demand and

supply sides is informed and analyzed by quantitative methods would be of great use. However, as the time needed for, and cost of such study may make it too difficult of an endeavor, other more accessible approaches may be favored. More detailed quantitative research of the effects of racialization of Latino ethnicity should use as dependent variables other measures of socioeconomic inequality such as income, a poverty dummy, and/or composite measures of occupational prestige such as the Houser-Warren SEI score. To capture other dimensions of the racialization process not included or not deeply analyzed in this study, the effect of racial categorization and gender discrepancies should be included in the interacted model as independent variables. To capture the geographic influence on the variance of the outcomes geospatial analysis that includes Public Use Microdata Area (PUMA) should be conducted. To remove the regional and temporal constrains for generalizability of the findings, data of the whole country and period of at least 50 years is preferable. Lastly, to increase generalizability even further, comparisons with other countries' contexts, such as the racialization of Turkish ethnicity in Germany, would be highly beneficial.

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Table 1. Summary Statistics by Ethnic Group—Post-Estimation Population Percentages.

Variable	European-American mean/sd	African-American mean/sd	Asian-American mean/sd	Latino-American mean/sd	Other-American mean/sd	European Immigrant mean/sd	Asian Immigrant mean/sd	African Immigrant mean/sd	Cent. Am. Immigrant mean/sd	South Am. Immigrant mean/sd	Mexican Immigrant mean/sd	Other Immigrant mean/sd
Occupational Status	54.19	45.98	56.06	42.35	47.20	56.62	55.10	51.89	31.44	48.96	26.76	57.53
	(26.47)	(24.70)	(27.23)	(24.34)	(26.29)	(27.36)	(28.41)	(28.05)	(23.03)	(27.63)	(20.60)	(27.14)
Year 2008	0.17	0.17	0.15	0.15	0.16	0.17	0.16	0.16	0.16	0.16	0.17	0.17
	(0.38)	(0.38)	(0.36)	(0.36)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)
Year 2009	0.17	0.17	0.15	0.15	0.16	0.16	0.16	0.15	0.17	0.15	0.17	0.17
	(0.38)	(0.37)	(0.36)	(0.36)	(0.37)	(0.37)	(0.37)	(0.36)	(0.38)	(0.36)	(0.37)	(0.38)
Year 2010	0.17	0.17	0.17	0.16	0.16	0.17	0.17	0.16	0.17	0.17	0.17	0.17
	(0.37)	(0.38)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.36)	(0.37)	(0.38)	(0.37)	(0.37)
Year 2011	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.16
	(0.37)	(0.37)	(0.37)	(0.38)	(0.37)	(0.37)	(0.38)	(0.38)	(0.37)	(0.37)	(0.37)	(0.37)
Year 2012	0.16	0.16	0.18	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.16	0.17
	(0.37)	(0.37)	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)	(0.38)	(0.37)	(0.38)	(0.37)	(0.37)
Year 2013	0.16	0.16	0.19	0.18	0.18	0.17	0.17	0.19	0.17	0.18	0.16	0.16
	(0.37)	(0.37)	(0.39)	(0.39)	(0.38)	(0.37)	(0.38)	(0.39)	(0.37)	(0.38)	(0.37)	(0.37)
California	0.60	0.82	0.84	0.89	0.63	0.71	0.85	0.69	0.90	0.85	0.87	0.68
	(0.49)	(0.39)	(0.37)	(0.32)	(0.48)	(0.45)	(0.36)	(0.46)	(0.30)	(0.36)	(0.34)	(0.46)
Nevada	0.06	0.08	0.04	0.04	0.06	0.05	0.04	0.06	0.06	0.05	0.05	0.05
	(0.24)	(0.27)	(0.19)	(0.20)	(0.24)	(0.21)	(0.19)	(0.24)	(0.24)	(0.23)	(0.21)	(0.21)
Oregon	0.13	0.02	0.03	0.03	0.10	0.07	0.03	0.04	0.02	0.03	0.03	0.07
	(0.34)	(0.15)	(0.17)	(0.16)	(0.30)	(0.25)	(0.16)	(0.20)	(0.12)	(0.18)	(0.18)	(0.26)
Washington	0.21	0.08	0.09	0.05	0.21	0.17	0.09	0.21	0.03	0.07	0.05	0.19
	(0.41)	(0.27)	(0.29)	(0.21)	(0.40)	(0.38)	(0.28)	(0.41)	(0.16)	(0.25)	(0.22)	(0.40)
Age	41.78	39.52	33.59	33.36	35.91	42.37	42.95	40.73	40.68	42.58	39.30	43.20
	(13.60)	(13.04)	(12.29)	(12.19)	(13.07)	(12.50)	(11.64)	(11.50)	(11.42)	(11.90)	(11.17)	(12.17)
Age^2	1930.33	1731.70	1279.14	1261.64	1460.67	1951.33	1980.13	1790.88	1785.53	1954.31	1669.60	2014.14
	(1129.33)	(1055.35)	(955.48)	(930.42)	(1021.90)	(1057.57)	(1002.44)	(954.47)	(953.01)	(1016.35)	(911.58)	(1041.19)
Female	0.48	0.51	0.49	0.49	0.50	0.49	0.50	0.44	0.44	0.50	0.39	0.48
	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.50)	(0.49)	(0.50)
Married	0.51	0.31	0.34	0.36	0.35	0.61	0.67	0.59	0.51	0.58	0.59	0.61
	(0.50)	(0.46)	(0.47)	(0.48)	(0.48)	(0.49)	(0.47)	(0.49)	(0.50)	(0.49)	(0.49)	(0.49)
Educational	2.97	2.74	3.20	2.50	2.76	3.14	3.14	3.12	1.98	3.00	1.72	3.08
Skill (1-4)	(0.91)	(0.86)	(0.87)	(0.88)	(0.91)	(0.91)	(0.99)	(0.92)	(0.99)	(0.94)	(0.87)	(0.92)
Less than HS	.042	0.06	0.03	0.12	0.08	0.04	0.07	0.05	0.40	0.06	0.51	0.44
	(.20)	(0.24)	(0.18)	(0.32)	(0.27)	(0.19)	(0.26)	(0.21)	(0.49)	(0.23)	(0.50)	(0.20)
HS Diploma	.30	0.35	0.20	0.41	0.34	0.24	0.21	0.23	0.32	0.26	0.32	0.26
	(.46)	(0.48)	(0.40)	(0.49)	(0.47)	(0.43)	(0.41)	(0.42)	(0.47)	(0.44)	(0.47)	(0.44)
Some College	.30	0.38	0.30	0.33	0.34	0.27	0.22	0.28	0.18	0.30	0.12	0.28
	(.46)	(0.48)	(0.46)	(0.47)	(0.47)	(0.44)	(0.41)	(0.45)	(0.38)	(0.46)	(0.32)	(0.45)
College or More	.36	0.21	0.47	0.15	0.25	0.46	0.50	0.44	0.10	0.38	0.05	0.43
	(.48)	(0.41)	(0.50)	(.35)	(.43)	(0.50)	(0.50)	(0.50)	(0.30)	(0.49)	(0.22)	(0.49)
Not Fluent in English	0.00	0.00	0.05	0.06	0.01	0.21	0.41	0.25	0.66	0.37	0.71	0.08
	(0.06)	(0.06)	(0.21)	(0.24)	(0.09)	(0.41)	(0.49)	(0.43)	(0.47)	(0.48)	(0.45)	(0.26)
Educated	0.00	0.00	0.00	0.00	0.00	0.53	0.61	0.68	0.68	0.62	0.66	0.52
Abroad	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.50)	(0.49)	(0.47)	(0.47)	(0.49)	(0.47)	(0.50)
Legal Status	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.13	0.39	0.21	0.46	0.17
Undetermined	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.36)	(0.36)	(0.34)	(0.49)	(0.41)	(0.50)	(0.38)
Sample n	781846	60232	47007	195791	44090	42056	168518	8526	37568	11129	175179	15023
Population N	76,932,474	7,397,183	4,850,886	22,341,351	4,234,010	4,289,812	16,986,608	1,008,917	4,464,272	1,199,319	20,913,115	1,512,012

Standard errors in parenthesis. Source: American Community Survey 2008-2013
Percentages are computed within ethnic groups, so their totals must be calculated column-wise.

Table 2. Nested Regression of Occupational Status Score on Education, Legal status, and Ethnic Origin; Controlling for Time, Place, and Demographic characteristics in Western USA 2008-2013.

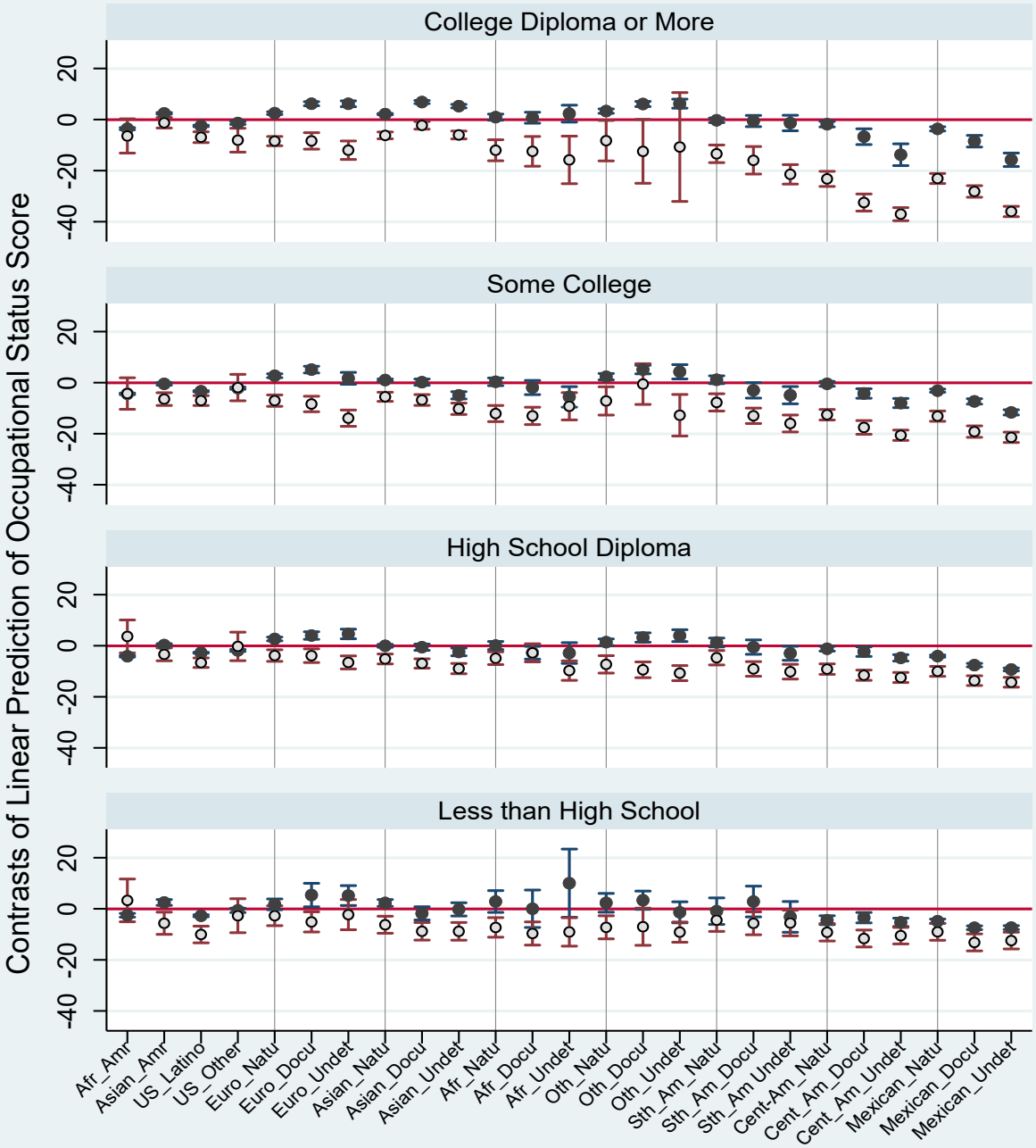
Nam-Powers-Boyd Occupational Status Score, 1990 basis	Model 1 Educational Attainment	Model 2 Labor Market Access Limitations	Model 3 Ethnic Origin
Year (reference 2008)			
2009	-0.494***	-0.449***	-0.426***
	(0.079)	(0.075)	(0.074)
2010	-0.931***	-0.850***	-0.802***
	(0.078)	(0.075)	(0.074)
2011	-1.209***	-1.121***	-1.053***
	(0.086)	(0.083)	(0.081)
2012	-1.339***	-1.252***	-1.166***
	(0.088)	(0.082)	(0.081)
2013	-1.149***	-1.075***	-0.971***
	(0.083)	(0.081)	(0.080)
State (reference CA)			
Nevada	-1.912***	-2.826***	-3.064***
	(0.113)	(0.110)	(0.110)
Oregon	-1.164***	-2.937***	-3.648***
	(0.082)	(0.082)	(0.081)
Washington	-0.121*	-1.600***	-2.388***
	(0.058)	(0.055)	(0.057)
Age	1.201***	1.537***	1.604***
	(0.011)	(0.011)	(0.011)
Age^2	-0.0118***	-0.0156***	-0.0165***
	(0.000)	(0.000)	(0.000)
Female	-1.291***	-1.435***	-1.458***
	(0.035)	(0.035)	(0.035)
Married	3.035***	4.055***	3.909***
	(0.045)	(0.043)	(0.043)
Education (Less than High School reference)			
High School	13.67***	7.149***	5.540***
	(0.072)	(0.079)	(0.081)
Some College	23.91***	16.05***	14.02***
	(0.077)	(0.084)	(0.085)
College or More	45.80***	37.73***	34.89***
	(0.066)	(0.077)	(0.081)
Not Fluent in English		-9.847***	-8.410***
		(0.079)	(0.082)
All Education Abroad		-3.806***	-4.883***
		(0.075)	(0.082)
Undetermined Legal Status		-3.647***	-2.070***
		(0.085)	(0.089)
Ethnic Origin (Reference European-American)			
African-American			-3.940***
			(0.099)
Asian-American			1.284***
			(0.119)
Latino-American			-2.776***
			(0.071)
Other-American			-1.673***

			(0.113)
European Immigrant			3.037***
			(0.144)
Asian Immigrant			1.925***
			(0.085)
African Immigrant			-0.246
			(0.283)
Central American and			-4.065***
Caribbean Immigrant			(0.131)
South American			-1.131***
Immigrant			(0.319)
Mexican Immigrant			-5.767***
			(0.092)
Other Immigrant			3.517***
			(0.226)
Constant	-3.040***	-0.508*	1.425***
	(0.231)	(0.229)	(0.235)
Observations	2004651	2004651	2004651
Population Size	209,644,470	209,644,470	209,644,470
Subpopulation Obs.	1,586,965	1,586,965	1,586,965
Subpopulation Size	166,129,959	166,129,959	166,129,959
Block df	15	3	11
Design df	79	79	79
F; Pr>*F*	48240.59; 0	16236.8; 0	1121.80; 0
Pseudo R^2	0.38	0.41	0.42

Standard errors in parentheses. Calculated using balanced repeated replication (BRR).
Model uses US-born Males as the demographic reference, California as the base spatial reference, 2008 as the base temporal reference and low education as the educational skill reference. European Americans are the reference of block 3
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1. Contrasts of Predictive Margins of Ethno-Legal by Educational and Fluency Interactions with 95% CIs

US West Coast

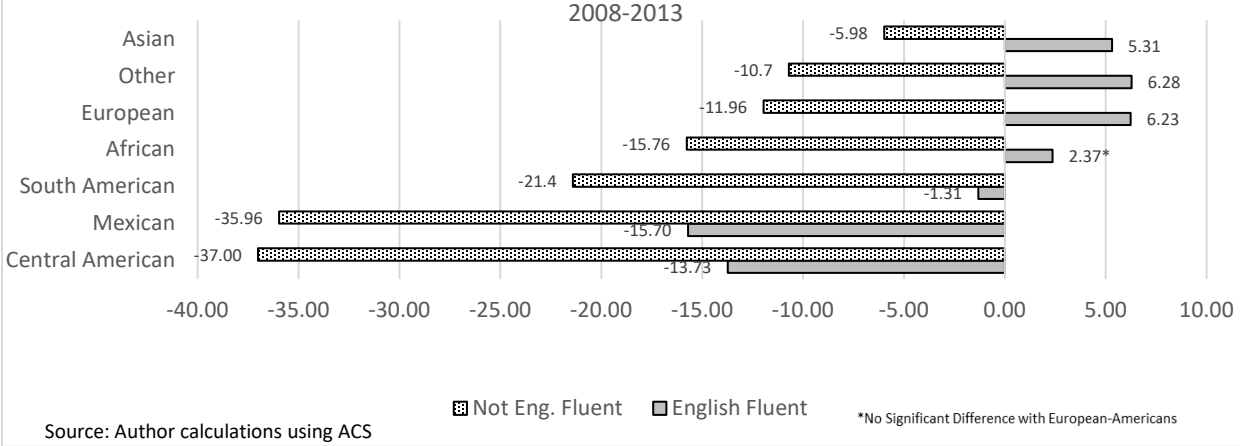


Ethnic Background by Legal Status:
Native, Naturalized, Legal Resident, Undetermined

English Proficiency
● Fluent ○ Not Fluent

Source: ACS 2008-2013

Figure 2. Linear Marginal Prediction Contrasts of Highly educated European-Americans vs. Highly Educated Immigrant Groups with Undetermined Legal Status. U.S. West Coast 2008-2013



Source: Author calculations using ACS

Figure 3. Linear Marginal Prediction Contrasts of Highly educated European-Americans vs. Highly Educated Immigrant Groups that speak English Very Well. U.S. West Coast 2008-2013

Source: Author calculations using ACS

Appendix

Figure A1

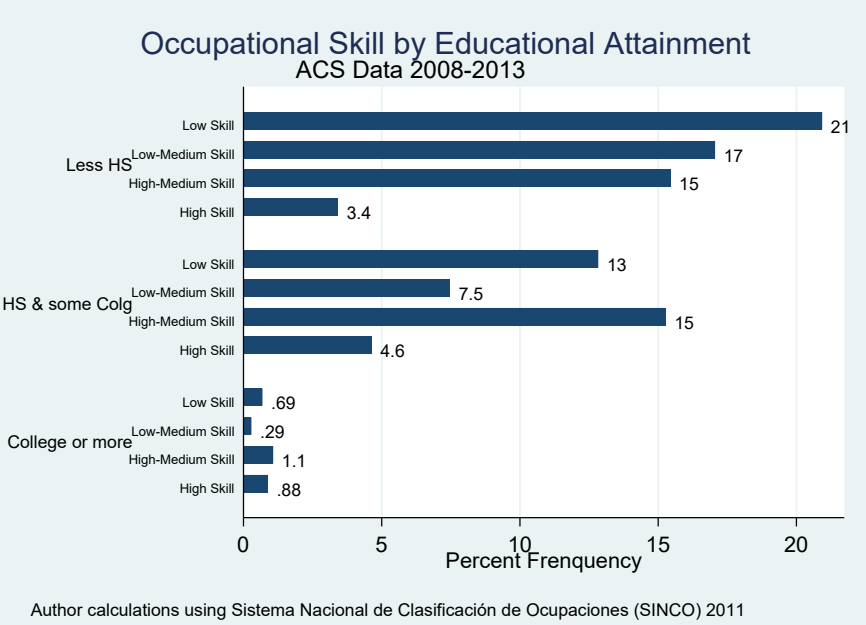


Figure A2