

## **Immigrant Stereotypes and Differential Screening**

Title: Immigrant Stereotypes and Differential Screening

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**Purpose** – There have been an increasing number of allegations of discrimination towards U.S. employees and anecdotal indications of immigrant employee exploitation in the information technology sector. The paper’s aim is to investigate if applicants' work visa status causes native-born applicants to be treated differentially (less favorably) than foreign- born applicants.

**Design/methodology/approach** –A correspondence study design is used to observe differential screening processes by measuring the frequency of favorable job application responses received by foreign-born applicants compared to equally skilled native-born applicants.

**Findings** – Results from the study suggest that fictitious Asian foreign-born applicants who demonstrate the need of H-1B work visa sponsorship for employment receive significantly more favorable email responses to job ads than U.S. native-born applicants. Moreover, White native-born applicants are approximately twenty-three percent less likely than Asian foreign-born applicants to receive a request for an interview.

**Research limitations/implications** – Because of the chosen method, the research results may lack generalizability. The hypotheses should be tested further by targeting more geographical locations, a variety of industries and using qualitative methods in future research.

**Practical implications** – The paper includes implications for hiring managers who wish to reduce their liability for employment discrimination and foreign-born job seekers wishing to manage their expectations of the recruitment process.

**Originality/value** – This paper fulfils an identified need to empirically study how the work visa status of job seekers affects early recruitment as increasingly more anecdotal evidence of immigrant exploitation and discrimination in the technology sector is reported.

**Keywords:** Exploitation, statistical discrimination, H-1B visa, work visas, immigrants, foreign-born workers, early recruitment, selection

**Article Type:** Research paper

## **Immigrant Stereotypes and Differential Screening**

The percentage of immigrants in the U.S. workforce has gradually increased over the last decade (BLS, May 2016), and in both 2017 and 2018, a record was set for reaching the U.S. cap of 65,000 H-1B visas within four days for the following fiscal year (Trautwein, 2017; USCIS, 2017; USCIS, 2018). Perspectives on the outcomes of immigrants in the workplace, however, point in somewhat contradictory directions. Influential theoretical models of employment discrimination suggest that immigrants, like other ethnic minorities, will obtain subpar outcomes in the labor market (Dietz, Joshi, Esses, Hamilton & Gabarrot, 2015; Galarneau & Morissette, 2004; Hakak & Al Ariss, 2013). Yet, the idea that immigrant workers displace workers born in the United States (Bloomekatz, 2007; Khalid, 2017; Waldinger & Lichter, 2003) has gained traction in the media. H-1 B visas are used by employers to attract foreign-born workers in industries where skilled labor is scarce (Baum & Kabst, 2013; Lambert, Basuil, Bell & Marquardt, 2017). Foreign-born workers who are not U.S. citizens also need them to work and live in the U.S. legally (U.S. Department of State, 2014). Current events from the media suggest that this dependent relationship that foreign-born workers have towards their employers may be unhealthy and create situations ripe for exploitation (Jamieson, 2011; Wigglesworth, 2013). Not surprising, the U.S. Justice Department recently issued a statement cautioning employers seeking H-1B visas not to discriminate against U.S. workers (USDOJ, 2017). These conflicting perspectives about the outcomes of foreign-born workers in the workplace underscore the complexity in the social perceptions of immigrants, which has received scant attention in the past (Dietz et al., 2015).

Discrimination, whether against immigrants or native-born U.S. workers, is problematic from a human capital perspective as it involves the differential treatment of individuals based on signals that are unrelated to job performance, undermining organizational decisions.

Consequently, an employer may not always succeed in hiring the most qualified applicants (Bertrand & Mullainathan, 2004; Lee, Pitesa, Thau, & Pillutla, 2015). As the “war” for talent intensifies globally, skilled immigrants are becoming an increasingly important part of Western labor forces (Dietz et al., 2015). To maintain a competitive edge, it is imperative that organizations select the best talent, irrespective of national origin (Baum & Kabst, 2013).

Unfortunately, despite several calls (e.g., Bell, Kwesiga, & Berry, 2010; Binggeli, Dietz, & Krings, 2013; Dietz, 2010; Hirschman, 1982; Pettigrew, 1998), research on immigrants in the workplace still remains under-studied (Binggeli et al., 2013).

Theory from prior research contends that employers prefer immigrant workers due to their exploitability (Bloomekatz, 2007; Moss & Tilly, 2001; Shih, 2002). The literature offers different explanations as to why discrimination occurs, which could shed light on the experience of immigrants in the workplace. The social psychology approach suggests that employers rely on cues that trigger stereotypes about a minority group that influence employment decisions.

Theories of statistical discrimination offer an alternative approach, suggesting that employers seek to maximize profit, and therefore prefer members of a particular group that are likely to be more productive in the workplace (Zschirnt & Ruedin, 2015). Following this logic, theory from prior research contends that employers prefer immigrant workers because they are exploitable – more likely to accept lower wages, work longer hours and complain less (Bloomekatz, 2007; Moss & Tilly, 2001; Shih, 2002). Although understudied in the management discipline, the scant literature available focuses on the effect and outcomes associated with labor exploitation

after immigrant workers are hired, such as lower wages, longer hours, and differential treatment (Avery, Tonidandel, Volpone, & Raghuram, 2010; Bloomekatz, 2007), rather than what happens pre-hire during the recruitment and selection process. Yet, previous studies indicate that the early stages of applicant screening, such as résumé screening, are especially vulnerable to hiring discrimination due to the way recruiters process information (Derous & Decoster, 2017; Derous, Pepermans, & Ryan, 2017). Further, discrimination in organizations often begins with selection decisions (Lee et al., 2015). In this study, we seek to investigate a more nuanced view of the pre-employment screening process to see whether immigrants are indeed the victims of hiring discrimination (as suggested by social psychological models) or if they are the recipients of preferential hiring (as suggested by economic statistical models). As suggested by Binggeli and colleagues (2013), because of the diversity among immigrants that could impact how they are perceived, we focused on a specific immigrant group – Asians, and compared them to native-born Asians and White Americans, as well as foreign-born Whites. To the best of our knowledge, prior research has not investigated this phenomenon, possibly in part because it is challenging to capture evidence of what occurs during the early stages of the selection process, before there is any physical contact between the employer and the job applicant (Powell & Goulet, 1996).

We propose a methodology that identifies whether employers show a preference for foreign-born applicants and thereby discriminate against native-born Americans, or for native-born Americans, discriminating against foreign-born applicants. First, we establish a benchmark for hiring discrimination by examining if native-born Asian-American applicants are treated differentially than native-born White applicants. We expect this based on prior research regarding the hiring discrimination towards racial minorities. Next, we examine if foreign-born

Asian applicants are more preferred than native-born applicants, irrespective of race, who possess equivalent skills. Evidence of such labor market behavior would contradict prior research that shows that White applicants are perceived as more attractive than racial minorities, and therefore receive more call backs for interviews (e.g., Bertrand & Mullainathan, 2004; Derous et al., 2017). In other words, when we observe that native-born White applicants experience greater access discrimination compared to foreign-born racial minorities from the same labor pool, we propose that 1) native-born applicants are *purposely* overlooked by employers for selection, and 2) foreign-born applicants are *deliberately* targeted due to employers' perceptions regarding their stereotyped behavior such that they will accept being overworked, will work longer hours and/or accept less pay. We examined the hiring process using the correspondence study approach. This methodology is in line with a large body of research that observes selection discrimination by measuring the frequency of favorable job application responses received by applicants from potential employers (e.g., Derous & Decoster, 2017; Derous et al., 2017). Specifically, we observe differential screening processes by measuring the frequency of favorable job application email responses to foreign-born applicants, and comparing them to data collected for equally skilled native-born applicants. There is currently only anecdotal evidence to suggest that differences in recruitment and hiring rates occur between foreign-born and native-born applicants in the United States, and the current study's contribution of an empirical examination of this kind of labor practice is warranted.

Because previous studies suggest that racial discrimination occurs in hiring decisions (e.g., Derous, Ryan, & Serlie, 2015; Kulik, Robinson, & Perry, 2007), and immigrants are simultaneously members of different racial groups, it is important to also explore the influence of race in the hiring process of immigrants specifically. We address this by exploring the effect of

foreign-born status on race, and contend that White and racial minority applicants who are native-born are less attractive to employers than foreign-born racial minority applicants. Drawing from literature on hiring discrimination and immigrant labor exploitation we examine the relationships between applicants' immigrant status, race and the likelihood of fictitious applicants receiving replies - email requests for job interviews. The sections that follow describe the study's theoretical foundation and present the research hypotheses, followed by the results, discussion of the research, its implications, limitations, and future research. The terms immigrant and foreign-born are used interchangeably as done in prior research (e.g., Chiswick, 1978; Stevens, 1999), and we also use the term visa-holder to describe individuals from another country who live in the U.S. for a long-term basis regardless of their intentions to gain citizenship (Dietz, 2010). The terms native-born, domestic, U.S., and American applicant are used interchangeably as well, to refer to individuals who are legal citizens of the United States.

### **The International War for Talent**

H-1B visas are a type of work visa that allows foreign-born employees to work and live in the United States under the sponsorship of their employer (USCIS, 2013; U.S. Dept. of State, 2014). The number of H-1B visa applications has increased significantly over the past year (O'Brien, 2016; Trautwein, 2017; USCIS, 2017) because a global "war" for talent is anticipated by employers who wish to maintain a competitive advantage (Baum & Kabst, 2013). In the search for workers with university degrees or those who are proficient in math and science (Bound, Demirci, Khanna, & Turner, 2014), the immigrant workforce in the information technology sector doubled reaching 32% (Bound et al., 2014). According to the U.S. Bureau of Labor (2018), in 2017, 4.8 % of foreign-born workers were specifically employed in Computer and Mathematical occupations, compared to only 2.8% of native-born workers. Of the 13% of

the population which is foreign-born (Grieco et al., 2012), approximately 11.6 million are from Asia (Gryn & Gambino, 2012). Because Asian immigrants are more educated than the general U.S. population, employers are seeking their skills making them one of the fastest growing group of immigrants to the United States (Lambert et al., 2017). Despite this current labor climate, the hiring process as it relates to foreign-born workers, particularly in the information technology industry, is understudied.

Statistical evidence regarding the employment rates of immigrants in the U.S. labor market suggest preference for foreign-born unskilled workers (those with less than a high school diploma) versus native-born workers with unemployment rates of only 4.6% for foreign born workers compared to 8.7% for native-born Americans (U.S. Bureau of Labor, 2018). The opposite was observed for skilled workers, where unemployment rates were lower for native-born workers (2.8%) compared to foreign-born workers (3.2%). Similarly, observations of the immigrant-native wage gap reveal mixed support for employer preference for either foreign-born or native-born workers. While the median earnings for foreign born workers in general is only 82.5% that of native-born workers (\$730 for foreign-born compared to \$885 for native born), for skilled workers, the earnings for foreign born is 105.4% of native born (\$1,340 for foreign born workers versus \$1,271 for native born workers; U.S. Bureau of Labor, 2018). Considering conflicting statistical data and the alleged discrimination against U.S. native-born job seekers in the information technology sector (Thibodeau, 2016), the argument for investigating differential recruitment and selection practices by employers of foreign-born Asian job seekers in this industry is compelling. In the next section, we present a benchmark for hiring discrimination towards native- born Asian -American applicants, to later compare with the selection outcomes for foreign-born applicants.



### **Prior Research on Hiring Discrimination**

The dominant view in the diversity literature is that ethnic and racial minorities face hiring discrimination in the U.S. workplace, and that racial minorities encounter barriers to employment at a greater rate than Whites (e.g., Bendick, Jackson, Reinoso, & Hodges, 1991; Pager, Western, & Bonikowski, 2009). Research demonstrates that hiring decisions are driven by racial categorization, and stereotypes associated with racial groups might be triggered, influencing the hiring managers' impression of the suitability of the applicants for the job. In particular, during the early stages in the hiring process, one of the first and most important methods used is resume screening, where recruiters obtain information from the applicant's resume, regarding his or her suitability for the job. Unfortunately, because of the limited individuating information available on a one- or two-page resume, the screening process is vulnerable to bias (Abrams, Swift, & Drury, 2016; Deros et al., 2015; Deros & Decoster, 2017). Racial categories and stereotypes are more likely to be triggered resulting in negative evaluations of racial minorities, and applicants perceived as Whites are likely to be viewed more favorably than racial minorities, and therefore given preferential hiring treatment.

Correspondence studies have been used as an effective type of research design to investigate the occurrence of this type of hiring discrimination (Bertrand & Duflo, 2017). For example, Bertrand and Mullainathan (2004) found that resumes with White-sounding names received 50 percent more callbacks for interviews than those with African American-sounding names. Despite companies increasingly recognizing diversity as a competitive advantage and revamping their hiring practices to promote equal treatment, discrimination against racial minorities persist (Quilian, Pager, Hexel, & Midtboen, 2017). In a recent meta-analysis based on

all existing studies (n=24) that use a field experimental method, representing 55,842 applications submitted for 26,326 positions, Quilian and colleagues (2017) found that Whites received significantly more callbacks than racial minorities; 36% and 24% more callbacks for interviews than did African Americans and Latinos respectively. As such, we propose that when applicants are native-born in the U.S., not foreign-born, then hiring discrimination will be based on race. As a result, White native-born applicants should be targeted as favored applicants compared to Asian- American native-born applicants.

*Hypothesis 1: Asian native-born applicants will receive less emailed interview requests compared to White native-born applicants.*

### **Schema theory, Signaling theory and immigrant utility**

Although research on immigrants in the workplace has received little attention (Binggeli et al., 2013), theories of social psychology suggest that immigrants are likely targets of prejudice and discrimination (Krings, Johnston, Binggeli, & Maggiori, 2014). For example, Lee and Fiske's (2006) stereotype content model (SCM) categorizes groups along two dimensions – competence and warmth (Fiske, Cuddy, Glick & Xu, 2002; Fiske, Xu, Cuddy, & Glick, 1999). Immigrant groups differ, depending on their national origin, on how they are perceived along these two dimensions. Thus, an applicant's name or country of origin may elicit stereotypes about his or her competence and warmth (Lee & Fiske, 2006; Oreopoulos, 2011). Groups viewed as highly competent but low on warmth, like Asians, may be targets of discrimination (Fiske et al., 2002; Krings et al., 2014). Similarly, drawing on social identity theory, Dietz and colleagues (2015) argued and provided evidence of discrimination against qualified and skilled immigrant

applicants. In other words, employers may prefer to hire native-born Americans over immigrants, independent of their productivity (Lee & Fiske, 2006).

Alternatively, theory and research suggest that there is a strong preference for immigrant workers (Bloomekatz, 2007), including racial/ethnic minorities, over White native-born Americans, suggesting that traditionally recognized models of hiring discrimination may not apply to foreign-born racial minority applicants. There are several potential explanations for this observation. First, schema theory suggests that individuals use schemas as cognitive structures to make decisions about targets (Fiske & Taylor, 1991). Schemas are made up of knowledge, beliefs, or perceived attributes about a target used to make evaluations about behavior. Person schemas are used to perceive others while self-schemas are used to conceptualize one's self (Fiske & Taylor, 1991; McKay & Avery, 2006). Because many foreign-born workers need a work visa to remain in the United States (U.S. Department of State, 2014), recruiters may hold beliefs about them, because of their visa status, stereotyping them as possessing limited economic and social capital, and therefore willing to work harder without complaining (Avery et al., 2010). In other words, foreign-born applicants are viewed as more 'productive' than their native-born counterparts who are perceived as having more options and therefore less willing to accept longer hours and more likely to challenge unfair working conditions. Second, signaling theory is premised on the idea that recruiters make employment decisions based on signals sent by the applicant, such as levels of education and experience, about their ability and suitability for the job (Spence, 1973). Recruiters are not only interested in hiring employees that are able and competent for the job, they are also interested in hiring employees that are willing to work hard without complaining. Foreign-born applicants on a non-permanent U.S. visa, may be viewed as having limited resources and options, and as such signal to the recruiter that they are willing to

work longer hours, and accept greater work loads, i.e. be more productive (Avery et al., 2010). As a result, recruiters may be motivated to hire them versus U.S. native-born applicants with the belief that they can benefit from their lack of resources and derive more from them. If this is true, then foreign-born racial minority applicants will receive more job interview opportunities than White native-born applicants.

There is anecdotal evidence showing that immigrant workers are exploited and paid less than their native-born counterparts (Jamieson, 2011; Wigglesworth, 2013) and researchers have long contended that employers perceive immigrant workers as exploitable because they are cheaper to hire (Bloomekatz, 2007; Moss & Tilly, 2001; Shih, 2002). For example, in 2011, Hershey and Excel, Inc. were accused of illegally compensating foreign student interns on J-1 travel visas in exchange for 40-hour work weeks (Jamieson, 2011). Similarly, Infosys, a global technology consulting firm paid \$34 million to settle allegations of visa fraud in a 2013 immigration case where the company was accused of using lower paid workers to increase profits (Wigglesworth, 2013). We call this the effect of ‘immigrant economic utility’, as employers may use person schemas regarding foreign-born workers that signal to them that immigrant applicants are an instrumental means of keeping labor costs minimal in order to reap greater returns.

Stereotypes of employment visa-holders as a more productive form of labor may become salient to employers when they are compared to native-born applicants during the selection process. As evidence of this, racial minority applicants who historically face discrimination and barriers to employment may instead be viewed as more attractive than White native-born applicants when they are perceived as foreign-born, due to the belief that they may be more productive. For example, because ethnic and racial minority U.S. citizens are historically

marginalized as job applicants, it would be surprising for them to be targeted as preferred hires over White job applicants. However, we contend that ethnic and racial minorities who are also visa- holders will be preferred by employers more than White native-born applicants, but not based on their perceived performance. Instead, the value of visa-holding applicants perceived by employers, lies within the economic benefit they may gain by hiring them for lower wages or to overwork them. Furthermore, the stereotype that foreign-born applicants are exploitable due to their perceived immigrant economic utility as a visa-holder is evident by the fact that when applicants belong to the *same* minority racial group, those who are not born in the U.S. will still be preferred more than their native-born counterparts because of the perception that they will work harder and/or accept lower wages. As such, our first hypothesis, which posits that Asian American job applicants will be viewed less favorably than White American job applicants, no longer holds true when Asian applicants are perceived by employers to be foreign-born. Consequently, Asian foreign -born applicants now become the most preferable target for hire compared to both Asian American and White American applicants.

*Hypothesis 2: Asian foreign-born applicants will receive more emailed interview requests compared to Asian native-born applicants.*

*Hypothesis 3: Asian foreign-born applicants will receive more emailed interview requests compared to White native-born applicants.*

### **The Intersectionality of Race and Immigrant Status**

Immigrants may be members of multiple groups in addition to their foreign-born status (Kulik et al., 2007) such as male or female, and black or white. The question then arises as to which identity is dominant and under what conditions? Drawing from the social cognition

literature, Kulik and colleagues (2007) advanced a two-stage model of impression formation based on category activation and inhibition in the hiring process for job applicants belonging to multiple identity groups. In this model, different cognitive processes of employers categorize applicants based on the characteristic that is most salient. Other models contest that because multiple identities are present, rather than one identity being activated and the others inhibited, a unique intersected identity may emerge (Goff, Thomas, & Jackson, 2008).

Irrespective of either viewpoint, not only does foreign-born immigrant status by itself signal exploitability, race interacts with immigrant status to reinforce the perceptions surrounding immigrant economic utility. Although Asian native-born applicants are traditionally perceived to be less attractive than White native-born applicants, we contend that when applicants are visa-holders, racial categorization reinforces stereotypes associated with being foreign-born. Employers make judgements regarding applicants' resources such as social capital, financial capital, and human capital based on their racial categorization. Racial minorities are already perceived to have fewer resources compared to Whites in the U.S. We contend that this perception is exacerbated for foreign-born job applicants making them stronger targets for hiring. Consequently, Asian foreign-born applicants are perceived by employers to have fewer opportunities and more likely to work harder for less pay making them more attractive from an economic point of view than White foreign-born applicants. As a result, we posit that Asian foreign-born applicants will be targeted for hire more by employers compared to their White foreign-born counterparts.

*Hypothesis 4: White foreign-born applicants will receive less emailed interview requests compared to Asian foreign-born applicants.*

## METHOD

Correspondence studies provide the advantage of studying social phenomena using real-world settings (Bertrand & Duflo, 2017; Tilcsik, 2011). Correspondence tests are a type of audit approach that sends fictitious resumes which are manipulated by a variable or characteristic of interest (race or visa status) under investigation to real employers (e.g. Bertrand & Mullainathan 2004; Correll, Benard, & Paik, 2007; Oreopoulos, 2011). Observations of job offers, email replies, or call backs help researchers examine the probability of the effect that variable has on receiving a favorable response.

The correspondence approach offers a number of advantages for our study. First, unlike lab studies with participants, the raters of the resumes are not susceptible to any social desirability effects because employers are unaware they are participating in a study. This also limits subjective bias which can pose challenges when using self-report instruments. Moreover, unlike subject participants asked to rate resumes in experimental settings, results from a correspondence study are more generalizable because real employers understand that their decisions are real ones that affect actual hiring outcomes (Bertrand & Duflo, 2017; Tilcsik, 2011). There are mixed views regarding how to interpret the results of correspondence studies. It may be difficult to draw conclusions regarding the response rates because information about the employer or hiring manager screening the resumes is limited or cannot be captured (Bertrand & Duflo, 2017). Although the frequency of response rates to resume submissions is used as evidence of hiring discrimination, with information about hiring managers lacking, it may be difficult to explain its occurrence and frame it in relevant theory (Bertrand & Duflo, 2017). By comparing the difference in employer response outcomes between native-born White applicants and *foreign-born* Asian applicants to the difference in outcomes between native-born White

applicants and *native-born* Asian applicants, we demonstrate how the difference in selection practices by employers can be explained using schema theory and statistical discrimination as discussed earlier.

### **Procedure**

Three hundred twenty four fictitious resumes were submitted to employers hiring in the computer technology sector near the Palo Alto, CA region, responding to 81 job postings by employers hiring in the computer technology sector near the Palo Alto, CA region. We applied for entry level and junior level positions that included key words such as software engineer, software developer, or software programmer. The tech companies targeted were located in cities in the state of California near Silicon Valley including Mountain View, Palo Alto, San Francisco, San Jose, and Sunnyvale.

We received 207 email responses from employers, an overall response rate of 63.8%. Only 46 responses were favorable requesting an interview for the position applied for or another similar position. The remaining 161 responses were either rejection emails, acknowledgements, or advertising a different position. While foreign-born applicants had a 46.2% chance of receiving a favorable response, equally qualified native-born applicants only had a 7.8 % chance of receiving one. The difference between foreign born and native-born applicants receiving a favorable email response equaled 38.4 percentage points, or 83% difference.

### **Manipulation**

Four fictitious resumes were developed to reflect a recent male student graduate seeking an entry-level job in the computer information technology sector. All the resumes were identical, but varied in the name of the job seekers, the student organizations they belonged to, and



whether or not they needed a visa to work. The manipulation of the resumes was adapted from descriptions of prior correspondence studies investigating hiring discrimination (Bertrand & Mullainathan, 2004; Tilcsik, 2011). The conditions of the resumes were manipulated based on information about the job seekers regarding their race and visa status. The conditions included the job seeker's representation as having an Asian-sounding name, White-sounding name, working with or without needing a work visa, and having membership in a student organization that either does or does not reflect a foreign national identity. All four resumes contained the same prior work experience (help desk technician), university, courses completed, summary of technology application experience, year of graduation, sex (male) and degree pursued (Bachelor of Science in Software Engineering) for all four fictitious applicants. Overall, a 2×2 factorial design resulted in the following resume conditions: (1) White × No Visa (domestic resume), (2) White × Visa (foreign-born resume), (3) Asian × No Visa, (4) Asian × Visa.

The foreign-born resume conditions included the following text in its “Objective” heading: “To obtain a position as a software engineer and apply my skills and knowledge with an established leader in the field at a U.S. company which sponsors H-1B work visas.” The excerpt, “at a U.S. company which sponsors H-1B work visas,” was omitted from the domestic resume condition. Furthermore, the foreign-born resume conditions listed either the Russian Student Organization or Stanford India Association as student activities while the domestic resume listed Student Union. Additionally, the foreign-born resume condition included the statement “under F1 visa work guidelines” when describing duties in the section under professional experience. We also created four fictitious emails, listed on the resumes, by creating four Google accounts that contained derivations of the fictitious applicants' names in their email address.

The resume manipulations were tested by electronically administering surveys to 129 students at a university located in the southern U.S. region. Students were emailed an invitation that included a link to the survey. Subjects with missing data related to the variables being investigated were removed, resulting in 123 valid responses ( $N=123$ ). The surveys included the four resume conditions and each condition was randomly assigned to participants using a between-subjects design. After reviewing 1 of the 4 randomly assigned conditions, participants were asked to respond to the statements “This person needs a work visa to work in the U.S.,” and “This candidate is White,” using a Likert scale (1 - Very unlikely to 5 - Very likely) to ensure that the manipulations for visa status and ethnicity (based on name) were interpreted correctly by participants. A one-way ANOVA was conducted to confirm the effectiveness of the manipulations. Results indicated significant differences between the visa and domestic resume conditions using Welch’s F test of equality of means,  $F(3, 61.43) = 17.150, p < .001$ . The mean difference of the White visa resume condition ( $M=3.91$ ) significantly differed from both the White domestic resume condition ( $M= 2.88, p = .000$ ), and Asian domestic resume condition ( $M=2.89, p = .000$ ). Additionally, the mean difference of the Asian visa resume condition ( $M= 3.92$ ) significantly differed from the Asian domestic resume condition ( $M= 2.89, p = .000$ ), and the White domestic resume condition ( $M = 2.88, p = .000$ ). There was also a significant difference for ethnicity using Welch’s F test of equality of means,  $F(3, 60.78) = 9.82, p < .001$ , with the mean difference of the Asian domestic resume condition ( $M = 2.34$ ) significantly differing from the White domestic ( $M = 3.08, p = .02$ ) and White visa resume condition ( $M = 3.20, p = .00$ ). Also, the Asian visa resume condition ( $M = 2.12$ ) significantly differing from the White domestic ( $M = 3.08, p = .00$ ) and White visa resume condition ( $M = 3.20, p = .00$ ).

## RESULTS

Table 1 shows favorable employer response rates by visa status and race. Table 4 displays the coefficients and odds ratios for the logistic regression model which explains between 28.3% (Cox and Snell R Square) and 43.4% (Nagelkerke R square) of the variance in employer responses, and correctly classified 82.1% of the cases.

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Insert Table 1 about here  
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### Statistical Analyses

We preliminarily used a linear probability model (LPM) to investigate the effect of visa status on interview requests received by employers because the results can be easier to interpret where beta weights represent the probability increase in a dichotomous dependent variable that corresponds with a one unit increase of an independent variable (Hellevik, 2009). However, violations of the homoscedasticity assumption may occur using LPM. Also, when using LPM, results outside of 0-1 can occur for certain combinations of values of independent variables (Hellevik, 2009). Logistic regression is designed to address these issues and serves as a better alternative when analyzing dichotomous dependent variables. Because it does not strictly rely on meeting the assumption of homoscedasticity and is robust even when the assumption of multivariate normality is not met (Hair, Black, Babin, Anderson, 2014), we also conducted logistic regression to further substantiate our results.

The independent variable for ethnicity was dummy coded as 0 and 1 to compare White and Asian resumes, respectively. The visa condition variables were coded as 0 and 1 to compare native-born applicants' resumes and foreign-born applicants' resumes. The hypotheses were tested using hierarchical regression by entering the independent variables in Step 1 and the two-

way interaction term (race  $\times$  visa) in Step 2. The main effect of race and visa in Step 1 was significant,  $F(2, 204) = 26.14, p < .001$ , and the interaction between race and visa was also significant,  $F(3, 203) = 32.64, p < .001$  in Step 2. The main effect for race indicated that there was not a difference between White vs Asian on employment status ( $p = .34$ ), but the main effect for visa was significant ( $b = 0.38, p < .001$ ). The positive regression coefficient indicates that needing visa sponsorship significantly increases the probability of being offered an interview by approximately 38% compared to not needing one. The significance of the interaction term indicates that race and visa status do work together to predict employment status ( $b = 0.72, p < .001$ ). To further inspect this interaction term, a separate regression was run with each combination of race and visa by resume condition entered as predictors.

The resume condition was dummy coded to compare the effect that each type of resume (i.e. Asian visa, Asian domestic, White visa, White domestic) has on interview offers. White domestic was dummy coded as the reference category to test hypothesis 1. Asian visa was coded as the reference category to test the remaining hypotheses. Overall the model was significant explaining approximately 32% of the variance in being offered an interview,  $F(3, 203) = 32.64, p < .001$ . Our first hypothesis was supported showing that being an Asian native-born applicant ( $b = -.20, p < .01$ ) significantly decreases the probability of being offered a job interview compared to being a White native-born applicant. Hypothesis 2 also was supported as the probability of receiving an email interview request decreases for Asian native-born applicants ( $b = -.54, p < .001$ ) compared to Asian foreign-born applicants. Our third hypothesis was supported showing that being a White native-born applicant ( $b = -.34, p < .001$ ) significantly decreases the probability of receiving a job interview request compared to being an Asian foreign-born applicant. Hypothesis 4 proposed that White foreign-born applicants will receive

less interview requests compared to Asian foreign-born applicants. Our results support our fourth hypothesis indicating that the probability of receiving an interview request significantly decreases for White foreign-born applicants ( $b = -.52, p < .001$ ) compared to Asian foreign-born applicants. Table 2 presents the results of this linear probability model.

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Because linear probability models violate multivariate assumptions (Hellevik, 2009), we used logistic regression to test the interaction effect and to examine whether the above findings are robust. The independent variables race and visa status were dummy coded with White and domestic as 0, and Asian and visa as 1. Interview offer was designated as the reference category for the interview request by employer dependent variable. Results from the logistic regression indicated a significant interaction effect ( $e^{5.35} = 209.77; p < .001$ ) and are presented in Table 3. To further inspect this interaction term we ran a separate logistic regression with each combination of race and visa status by resume condition entered as predictors.

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Insert Table 3 about here  
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To investigate the first hypothesis, the White domestic resume condition was designated as the reference category for the independent variable. Results indicate that the odds of Asian native-born fictitious applicants receiving a request for an interview are approximately 10% less ( $e^{-2.28} = .103; p < .01$ ) than White native-born applicants. This further supports our first hypothesis and is in line with prior research that suggests that hiring discrimination in favor of Whites exists among job seekers who are born in the United States. For the remaining

hypotheses, the Asian visa resume condition was designated as the reference category. Hypotheses 2 and 3 tested if foreign-born Asian applicants will receive more favorable email replies than native-born Asian or White applicants. Our second hypothesis was supported with the odds of Asian native-born applicants receiving a request for an interview approximately 2% less likely ( $e^{-3.76} = 0.02$ ;  $p < .001$ ) than Asian foreign-born applicants suggesting that Asian foreign-born applicants are targeted more for hire by employers compared to Asian native-born applicants. Hypothesis 3 was also supported with results indicating that visa status is a unique predictor of interview requests as Asian foreign-born job seekers received more favorable replies than White native-born job seekers. Moreover, White native-born applicants are approximately twenty-three percent less likely than Asian foreign-born applicants to receive a request for an interview ( $e^{-1.49} = .23$ ;  $p < .01$ ). Lastly, our fourth hypothesis that White foreign-born applicants are perceived as less attractive to employers compared to Asian foreign-born applicants was also supported. Results indicate that White foreign born applicants are 5% less likely to receive a request for an interview compared to Asian foreign born applicants ( $e^{-3.07} = 0.05$ ;  $p < .01$ ). The odds ratios for the logistic regression predicting employer responses is presented in Table 4.

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Insert Table 4 about here  
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## DISCUSSION

Anecdotal evidence suggest that immigrant workers are increasingly being exploited by employers (Khalid, 2017). Additionally, perceptions exist that native-born workers are discriminated against in favor of foreign-born workers during the selection process (Bloomekatz, 2007; Moss & Tilly, 2001; Shih, 2002). Yet, there is little empirical evidence to support these

claims. We investigated and tested the assumptions that foreign-born workers are preferred over native-born workers by employers in the software technology industry by manipulating the perceived racial identity and work visa status of job seekers applying to software technology firms using a correspondence study design. Our results contribute to the literature by offering evidence that foreign-born workers receive preferential treatment regarding hiring decisions by employers. Furthermore, this preferential treatment is surprising because our results indicate that Asians, who are viewed as racial minorities in the U.S. and who traditionally experience workplace discrimination, become preferred applicants when they are perceived to be seeking visa sponsorship. Although the contrast between the first and the remaining hypotheses provides evidence that immigrant status is salient to employers when making hiring decisions, we expected Asian foreign-born applicants to receive more email replies than both White and Asian native-born applicants, which was supported. Additionally, we found that White foreign-born applicants are viewed less attractive than Asian foreign-born applicants. This suggests that race may reinforce stereotypes associated with applicants' immigrant status if they are racial minorities who are perceived to lack various types of resource capital.

The current study offers implications for both hiring managers and job seekers. Diversity and cultural sensitivity training is known to focus mostly on race and gender, and address issues that affect current employees at work after they are already hired. Organizations who wish to reduce their liability for employment discrimination may wish to convey to their employees and hiring managers a firm understanding of labor recruitment policies in their diversity training. Our results indicate that training should be offered to hiring managers to include information about how potential stereotypes and biases towards foreign-born applicants may influence their selection decisions about them even before they become employees. Innovative forms of

screening such as blind recruitment methods could also be used to reduce recruitment discrimination and exploitation (Goldin & Rouse, 1997). These practices not only will protect organizations from liability, but it will assist with hiring applicants based on their knowledge, skills, and abilities (i.e. their talent) instead of their perceived economic utility, resulting in selecting those who are the most qualified versus those who they believe may work longer hours without complaining. Ultimately, screening and sorting a diverse labor pool properly can result in gaining a competitive advantage (McMahan, Bell, & Virick, 1998).

For foreign-born job seekers seeking to work in the U.S., learning about the stereotypic attitudes and beliefs of hiring managers in the U.S. may help them manage their expectations of the recruitment process. They may also cultivate methods and develop strategies to mitigate the negative effects from hiring managers' biases and exploitative behavior. For example, although our research suggests that foreign-born applicants will more likely be invited for an interview, we know from prior research that if hired, foreign-born workers may likely work longer hours, experience work overload, and receive less pay than their U.S. native-born counterparts. Similar to recommendations given to women and racial minorities to combat labor discrimination, foreign-born job seekers should invest in their education and social network. This will signal their greater value to employers compared to others applicants, in order to leverage higher pay and be in a position to receive more opportunities in the labor market. Additionally, by improving their English language skills and learning to communicate with an American accent,<sup>1</sup> foreign-born workers may be perceived as more 'American' and less exploitable. Lastly, the current narrative by most employers portrayed in media outlets is that there is a shortage of talent within the U.S. for workers with professional skills. Even though this may be true, the results

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<sup>1</sup> The authors do not support the idea that individuals who lack an American accent or understanding of the English language should experience labor discrimination.



from our study suggest a counter argument that when U.S. citizens do possess the human capital to perform jobs in the computer and software technology industry, they are less likely to be considered compared to foreign-born applicants. These findings contribute empirical evidence to anecdotal claims of discrimination against U.S. citizens and speculative evidence regarding possible origins of abuse towards foreign-born job seekers with H-1B visas.

### **Limitations and Future Research**

This study offers valuable contributions to our understanding of how differential screening of applicants occurs between immigrant and native-born applicants. Specifically, a major finding is that foreign-born applicants receive more favorable responses from employers than U.S. applicants. This shows that visa status signals additional information about applicants to employers. Because Asian applicants are perceived to be more attractive than White applicants to employers when they are foreign-born, but not when they are native-born, we contend that their perceived immigrant status may signal to employers that they offer value in the form of an economic benefit versus one regarding performance. However, the investigation has some limitations.

First, the ability to make complete inferences regarding applicant exploitation outcomes is limited. Correspondence studies have advantages as mentioned earlier in the paper, but a correspondence approach is limited because interview requests from employers regarding job ads are not the same as hiring someone. Furthermore, receiving an unfavorable response or not receiving one may not entirely convey an explanation as to why some applicants are not considered over others. Because researchers cannot survey the employers, assumptions have to be made based on the design of the study (Bertrand & Duflo, 2017). Qualitative studies, where employers are interviewed to gain insights on their decision-making process, could help shed

light on the impact of immigration and/or work visa status on hiring outcomes. In the current study we demonstrated that when applicants were perceived to be foreign-born they were targeted for hire at a greater rate compared to native-born applicants. It is possible that the hiring managers or decisions makers were also foreign-born or naturalized citizens who were biased *towards* immigrant applicants. Approximately sixty-six percent of the computer and mathematical jobs in the Silicon Valley are held by its foreign-born residents (Institute for Regional Studies, 2018). Another explanation for our results might be that employers were not driven by opportunities to exploit, but instead they were motivated by stereotypes concerning the abilities of Asian applicants in the STEM fields or technical jobs (Kim & Lewis, 1994). Future studies, should also explore whether Black foreign-born applicants are more attractive than Asian foreign-born applicants.

The chosen geographical location is a key limitation for correspondence study designs because it limits the generalizability of the results. In the present study, the Palo Alto region was chosen because of its popularity as being a city hub of technology. Well-known companies such as Google and Facebook are located in this area. However, the region's fame limits its representativeness of other cities throughout the United States. Companies located in other lesser known cities and regions may be more likely to reply to native-born applicants because they have a smaller labor pool of immigrant applicants to draw from. For example, according to the U.S. Census Bureau (2018a, 2018b), the foreign-born population of the Palo Alto is 34.7% compared to 13.4% for the United States. Also, compared to other cities, this area is not very diverse ethnically or racially which may also limit conclusions drawn from the current study. Sixty-one percent of the residents in Palo Alto are White and 31.3% are Asian, while 7.3% are Hispanic and less than 2% are Black (U.S. Census Bureau, 2018a). The demographics of this

population are skewed in its composition of Whites and Asians compared to other ethnic groups. Future researchers should consider including regions with different diversity population proportions and control for the popularity of various selected cities.

Another limitation to the current study is that industries vary by organizational culture, values, and education; all of which may influence decision making within organizations. The current study only investigated differential screening within one industry. The present study also only examined the selection outcomes for White and Asian immigrants. There are other industries that attract foreign-born workers, such as the agriculture industry, which attracts workers who belong to Hispanic and Latino populations. Because the labor pools of industries vary by many factors, including for example the level of education, socio-economic status, and English language speaking abilities, the generalizability of the current study's results is limited by occupational and cultural boundaries.

Drawing from the intersectionality research we proposed that immigrant status and race intersect to reinforce the stereotypes they represent. Similarly, age and sex are traits that may cause one's identity to signal to employers a different and unique set of beliefs and attributes (Booth & Leigh, 2010; Carlsson, 2011) Future research should also examine how the sex and age of immigrant applicants affect the number of responses received from employers.

## **CONCLUSION**

The purpose of this study was to investigate the differential screening that occurs between foreign-born and native-born applicants by employers. Our results suggest that even before applicants are interviewed or hired, preference towards applicants who need work visas is evident. Based on statistical discrimination theory and schema theory, we contend that

employers are affected by the perception of foreign-born workers having economic utility which triggers them to consider hiring them over U.S. native-born workers.

The current study offers an empirical alternative to anecdotal evidence that immigrant workers in the information technology sector displace U.S. workers, showing that native-born applicants do, in fact, experience hiring discrimination. Given projections of the continued need for highly skilled immigrants, implications of the current study may also stimulate further research in understanding other unexplored factors which play a role in employers' preference to hire immigrant workers. Further investigation is needed to explore industries outside the scope of technology in fields that do not require as much education or specialized expertise. Also, qualitative studies and other methods of research are needed to parcel out other reasons that may exist regarding why immigrant job applicants are preferred for hire more than native-born applicants. This study is a step toward further understanding the complexity of hiring discrimination occurring within an increasingly diverse labor market that includes international workers. Recognizing that differential screening may be a precursor to immigrant exploitation and discrimination against U.S. workers should help employers maintain fair and equitable hiring practices for all job applicants.

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