DIFFERENCES BETWEEN HISPANIC AND WHITE JOB SEEKERS IN JOB SEARCH LENGTH, SALARY, AND THE ROLE OF INTERNSHIP EXPERIENCES

by

Natalie Wilde

A thesis submitted to the faculty of
The University of North Carolina at Charlotte
in partial fulfillment of the requirements
for the degree of Master of Arts in
Psychology-Industrial & Organizational

Charlotte

2023

Approved by:

_____

Dr. Linda Shanock

_____

Dr. Anne-Kathrin-Kronberg

_____

Dr. Scott Tonidandel

ABSTRACT

NATALIE WILDE. Differences Between Hispanic and White Job Seekers in Job Search Length, Salary, and The Role of Internship Experience
(Under the direction of DR. LINDA SHANOCK)

Over recent years, progress has been made toward improving Hispanic American's education and work outcomes. However, even among college graduates, Hispanic Americans face marked difficulty on the job market in terms of both salary and hiring (NCES, 2016; 2019). Research suggests that entry into the workforce after education is a critical and potentially stressful period in one's career (Yang & Gysbers, 2007) and could be the starting point to a lifetime of cumulative disadvantage in income. Yet, a targeted examination of this critical time period is lacking in the literature, and focus remains mainly on long-term systemic solutions that are necessary but do not improve outcomes for current Hispanic graduates. This project aims to fill this gap by examining early job outcomes of Hispanic graduates relative to their White peers, providing insights about new entry to the workforce which may be leveraged in future research on early job seeking experiences. I analyzed secondary data collected by the career services center of a large, Southeastern university in the United States to assess how racioethnicity (Hispanic vs. White) relates to starting salary and job search length—time spent actively job searching before being hired—for graduates entering the full-time job market, with or without internship experience. The results indicate that there are no differences between White and Hispanic graduates in starting salary nor job search length nor does internship experience matter in the relationship between racioethnicity and job search length.

KEY WORDS: racioethnicity, job search, income

ACKNOWLEDGEMENTS

I would like to acknowledge my advisor, Dr. Linda Shanock, and thank her for her guidance and kindness as she aided me in this project. Additionally, I would like to express my gratitude to my committee members, Dr. Anne-Kathrin Kronberg and Dr. Scott Toniandel, both of whom helped me immensely in creating and refining my thesis. Finally, I would like to thank my cat, Mia, who was always there to remind when it was time to rest.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Prior to the COVID-19 pandemic, Hispanic and Black workers already received considerably lower earnings on average than White and Asian workers in the United States, with median usual weekly earnings of full-time wage and salaried Hispanic workers at $779—the lowest of all racioethnic groups reported (BLS, 2021). Despite a history of economic challenges, college enrollment and graduation rates of Hispanic students have been steadily growing over the last ten years according to the National Center for Education Statistics (NCES). This increase in education opens doors for many Hispanic workers, giving them better access to the numerous jobs that list a bachelor's degree as a prerequisite. However, income inequality continues to be a major issue even for those who achieve higher education, as Hispanic graduates on average earn the lowest annually relative to other racioethnic groups (NCES, 2019; 2016). This pay inequality among graduates, if it begins upon entry to the job market, may be an early indicator of what Diprete and Eirich (2006) would call cumulative advantage—the idea that "the 'advantage' of one individual or group over another grows (i.e., accumulates) over time" through favorable access to resources (p. 2). Research from Yang and Gysbers (2007) this sentiment— stating that one's first job search and subsequent entry into the workforce are important not only to immediate job outcomes, but also later career trajectory. The current study seeks to better understand the first job search experiences and outcomes of Hispanic college graduates specifically as this group continues to face income inequality later in their careers despite educational advancement.

LITERATURE REVIEW

Job search behaviors and outcomes of individuals seeking employment after a period of education, referred to as new entrants (NEs) by Kanfer and colleagues (2001), is not a new topic of research, but it is evolving to incorporate one of today's most prevalent subjects: diversity, equity, and inclusion. As workforce diversity has become an important initiative for many organizations (Ployhart, 2008), research concerning how job search activity for NE's varies across diverse groups has grown, but has mostly focused on diversity during selection (e.g. Wei-Cheng & Kopischke, 2001; Ali et al., 2016). Understanding the job search behaviors and outcomes of diverse NE's is not only important for diversity during selection. It is also a first step toward understanding of how early job search activity may affect later career success through access to financial, temporal, and network resources. By examining their job search lengths, offered salaries, and the role of internship experiences, this project aims to provide insights about the relative first job search experiences of White and Hispanic graduates.

Hispanic-White Differences in Starting Salary

The Hispanic-White income gap at a national level is well established, but the gap for college graduates specifically has not received as much empirical attention. Free et al. (2007) analyzed data on the expected starting salaries of college graduates by major, considering factors of gender and race. They found Hispanic-White differences in expected starting salary for men with Hispanic men tending to have majors with lower expected starting salaries than those of White men. Interestingly, this relationship did not manifest for women, as Hispanic and White women had relatively similar starting salaries, and Hispanic women had a somewhat larger presence in higher paying majors than White women. This analysis is limited by its dependence

on expected starting salaries by major, rather than actual starting salary of the individual job entrants. Recent research by Shore and colleagues (2021) provides insight as to why Hispanic job seekers do not always receive the average or expected salary for their major. In their experiment, participants (n=164) were randomly assigned to review a fictitious resume that was either error-laden or error-free and belonged to a White, Black, or Hispanic job applicant with a bachelor's degree. The participants in this study rated the applicants on their perceived competence, perceived job commitment, likelihood to interview, and their recommended starting salary. The researchers found strong evidence that White applicants were rated higher in competence and job commitment on average than Hispanic applicants. Notably, in both error-laden and error-free conditions, White applicants received significantly higher starting salary recommendations Hispanic applicants. These laboratory findings align with the previously discussed national trends, clearly demonstrating racioethnic stereotypes around competency and significant income differences that disadvantage Hispanic graduates. Yet, the significance of this income gap cannot be fully encompassed by numbers. It is important to consider what those dollar amounts may translate into—food security, access to safer living situations, better medical care, and better-funded school districts (Cooper & Pugh, 2020). In fact, some researchers argue that the 'wealth' gap is a more accurate representation of inequality as it focuses on net worth rather than salary alone (Mckernan et al., 2013). Income differences are, however, recognized as a major driving force in the wealth gap (Oliver & Shapiro, 2019; Aliprantis & Carroll, 2019). I therefore focus on potential income differences between Hispanic and White graduates. Given the findings of previous research and national trends, I predicted there would be racioethnic differences in starting salary.

Hypothesis 1: Hispanic NE's receive lower starting salaries than White NE's.

Job Search Length

Job search behavior overall is recognized in the literature as multidimensional, including aspects of effort/intensity, content/direction, and temporal/persistence (Van Hoye et al., 2018). By far, the effort (energy towards job searching) and intensity (frequency of specific job search activities) dimensions have been the most thoroughly explored. Recent meta-analysis from van Hooft et al. (2021) demonstrates strong support for positive relationships between job search effort/intensity and job success outcomes such as number of interviews or job offers.

As for job search content/direction, which is focused on the types of activities performed and the quality of that performance, there is substantial evidence for differences in the effectiveness of informal (e.g. networking with friends) and formal (searching for job applications online) job search strategies. These differences are, however, moderated by the quality of one's network in that informal strategies are more effective when network quality is high and less effective when network quality is low (Van Hoye et al., 2009).

Regarding the temporal/persistence aspect of job search behavior, much of the research in this area has focused on how one's job search behaviors (e.g. effort, intensity, content) change over time. Several models of the temporal/persistence aspect of job search behavior have been tested using samples of NE's and other unemployed job seekers, but the sequential model (Barber et al., 1994) has received the most empirical support. The sequential model posits that job seekers begin the job search with preparatory behaviors to identify job opportunities followed by a narrowing of prospects and more active behavior such as filling out applications. When these efforts do not result in desired job offers, the job seeker may return to earlier preparatory stages, decreasing their active job seeking behaviors before increasing them again. Barber et al.'s examination of NE's early in their job search, at graduation, and three months

after graduation supported the sequential model of job search behavior. Wanberg and colleagues (2005) replicated the above findings in a 10-wave longitudinal study of job search intensity over a period of unemployment. Consistent with the sequential model, job seekers decreased their job search intensity somewhat over time before increasing it again as they remained unemployed.

Despite the empirical evidence for the sequential model for new job entrants describing temporal/persistence in job search behavior, in all three of these dimensions of job search behavior— effort/intensity, content/direction, and temporal/persistence—there is a lack evidence suggesting racioethnic subgroup differences. In fact, Wei-Cheng and Kopischke (2001) provide a nationally representative study to address racioethnic differences in job search intensity of college graduates. There were no significant differences between White and Hispanic graduates in terms of the number of job search methods used, suggesting similar levels of job search intensity between the two groups. What sets job search length apart from these dimensions is the control that the individual job seeker largely has control over their job search effort/intensity, content/direction, and persistence. In the case of job search length, control is partially held by the job seeker who can change their effort, direction, or standards for a job, but it is also held by the hiring organizations.

I expect job search length to be relevant to Hispanic NE's in particular as they face unique challenges during selection which may increase their job search lengths. Due largely to educational and socioeconomic differences, Hispanic applicants score lower than White and Asian applicants on average on many cognitive ability tests used in selection (Berry et al., 2011), making them less likely to be selected than their White and Asian peers. Beyond this systematic challenge of test scores, Hispanic applicants may also face discrimination during the screening process. For example, King and colleagues conducted a study where White, male participants

examined high or low-quality resumes with race-type names that were Asian American, Black, Hispanic, or White (King et al., 2006). The participants gave an overall evaluation of applicants on Likert-scale items such as "How intelligent do you think this individual is?" (p. 1149) and "How likely would you be to hire this individual?" (p. 1149). They found that Asian American and White applicants were rated higher overall and benefited more from high quality resumes than Black and Hispanic applicants. If we follow the implications of these lines of research, the average Hispanic applicant is less likely to be selected for employment than competing White applicants and would thus require more cycles through the application process before job attainment.

In addition to the financial disadvantages that come with a longer job search length, there may be negative consequences for NE well-being as job search length increases. McKee-Ryan and colleagues' meta-analysis on unemployment and well-being (2005) that speed of reemployment has important implications for well-being. Specifically, NE well-being suffers more from longer periods of unemployment than does adult well-being (McKee-Ryan et al., 2005). Wanberg and colleagues' (2012) qualitative study of job search experiences provides further insights on the topic of job search length. The researchers interviewed over 70 job seekers who were looking for white-collar jobs (many of which requiring a bachelor's degree). Through analysis of interview transcript by multiple raters, they found that longer job search processes depleted applicant motivation, involvement in job search activities, and subsequent employment success. While these findings are independently valuable to our understanding of job search experiences, we do not know how they might together play a role in how long one's job search lasts. Considering prior research in both these areas, I hypothesized that Hispanic graduates have longer job search lengths on average than their White peers.

Hypothesis 2: Hispanic NE's have longer job search lengths than those of White NE's.

Internship Experience

While the underlying systematic disadvantages in resources and education may be the main drivers of inequality for Hispanic workers (Neckerman & Torche, 2007), improvements to these systems will not remove the challenges faced by the Hispanic graduates entering the market today. That is, the hypothesized gaps in starting salary and job search length for Hispanic college gaps may not see improvement based on societal efforts to remove systemic barriers for quite some time yet. However, there may be ways to improve job outcomes for these individuals in the near-term. Internship experience may be one such means to improve starting salary and reduce job search length. According to NACE (National Association of Colleges and Employers), roughly 70 percent of employers from their 2009 annual Job Outlook survey indicated they preferred to hire students with experience, and about 85 percent of these employers reported offering this experience through internships (National Association of Colleges and Employers, 2009; 2008). The value of internship experience for NE's is further supported by actual job placement data as well. Gault et al. (2010) surveyed 185 employers of 392 interns enrolled in an accredited business college in a Northeastern US university on the perceived value of the internship experience, the effect of intern performance on internship value perceptions, and the relationship between internship participation and employer selection and compensation decisions. Their findings showed that average-performing interns were more likely to receive a job offer than non-interns, and high-performing interns received higher starting salaries on average than average-performing interns (Gault et al., 2010). These results corroborate previous findings on the value of internship experience for job placement in the business and hospitality industries (Callanan & Benzing, 2004; Chi & Gurosy, 2009), but the

sample from Gault and colleagues' work provides insights for a wider array of industries. Drawing on the evidence in the literature, it might be the case that Hispanic NE's who have had internships experience job search lengths similar to those of White NE's. That is, internships, which are highly valued by employers of new entrants to the workforce, may help overcome the average test-score differences and competency stereotypes that often prevent Hispanic applicants' success. to moderate the relationship between ethnicity and job search length in that Hispanic applicants with internship experience will have job search lengths equal to those of their White peers. As I do not have access to data on their internship performance ratings, I do not expect any relationship between internship experience and starting salary.

Hypothesis 3: Internship experience moderates the relationship between racioethnicity and job search length such that the White-Hispanic difference in job search length is smaller for those who have internship experience than those who do not.

METHOD

Participants and Procedure

In this study, I used data that were collected from rising graduates who entered the full-time job market following their graduation (rather than continuing onto higher education or doing part-time work) from a university in the Southeastern United States from 2017-2021. These data were collected by the university's career center for the purposes of gathering information about students' first job destinations after graduating. The survey was distributed approximately one month prior to the participants' undergraduate graduation, and the survey remained open until the end of the following semester to allow time for as many students as possible to complete the survey. Graduates who had yet to respond and indicate that they were employed received a reminder email once per month to complete the survey until 1) they responded to the survey, reporting that they had been hired and were no longer "still seeking" or 2) until the survey's time period ended. The response rate for the survey ranged from 31% to 43% and averaged at roughly 38% of the graduating class, and participants came from a wide variety of undergraduate majors.

Upon opening the online survey by clicking a link, participants were informed that the survey was voluntary and that their data would remain confidential as information would only be reported in aggregate terms. Students who chose to participate in the survey then responded to questions about their employment following graduation including questions about employment status, place of employment and its characteristics, job title, salary, total job search length, and internship experience. For the purposes of this study, I focus on the data collected for

racioethnicity, salary, job search length, and internship experience (See Appendix for the relevant excerpt of the full survey).

The data were cleaned by the university's career center prior to this project. Survey responses that were completely blank (cases where participants opened but did not complete the survey) were removed, and all other partial responses were kept with few exceptions. Nine participants were excluded for reporting salaries that were either extremely low (less than minimum wage) or extremely high for a first job after undergraduate school (greater than $130,000). After data cleaning, the total number of Hispanic and White participants was 9,549. Approximately 13% of participants were Hispanic/Non-White, and 87% were Caucasian/White. For the purposes of this study, I retained only complete cases for my variables of interest. The proportion of missing data is high across all variables of interest (salary, job search length, and internship experience), ranging from 70-86%, and this was common across other measures in the career center's survey of rising graduates that were not used in this analysis. Participants may have chosen not to respond to items that ask about more sensitive information (e.g., salary) or items that were later in the survey. The proportion of missing data is highest for internship experience because that was not measured in the 2017 and 2018 surveys. I examined the missing data by racioethnicity through a series of chi-square tests of independence (see results section), and I did not find significant differences between White and Hispanic participants in likelihood to respond. In this sample of complete cases there were 650 participants from 2019-2021, and about 15% of those participants were Hispanic.

Data Analysis Strategy and Model

My hypothesized model appears in Figure 1. All analyses were conducted using RStudio using the stats, lm, and glm packages (R Studio, 2022; R Core Team, 2022). Hypothesis 1 which

assesses the ethnicity-salary relationship was tested using an ordinary least squares (OLS) regression model. In the case of the relationship between racioethnicity and job search length, logistic regression was used with internship experience added to the general linear model as a dichotomous (yes/no) predictor variable to test for moderation effects (Hypotheses 2 and 3). While time-to-event analysis and ordinal logistic regression were discussed as potential analysis strategies, the cross-sectional structure of the job search length variable and the cell sizes of the ordinal categories were not well-suited to these methods. As previously mentioned, participants who indicated that they were still seeking employment were reissued the survey until they had been hired and completed the survey or until the data collection ended. However, data on *when* participants indicated they were still seeking/employed was not available. Thus, "still seeking" could denote a participant who was still looking for a job three months after graduation, eventually was hired, and never responded to the survey again, or it could denote a participant who was still seeking a job six months after graduation. The lack of clear meaning in the still seeking response eliminated time to event as an analysis strategy, and I limited the dataset to participants who indicated they obtained full-time employment. Ordinal logistic regression was the next analysis strategy I considered, as job search length was measured in ordinal categories, but the cell sizes of some of the ordinal categories were too small to justify this analysis. The majority of participants (~75%) indicated they were hired at or before graduation, and the majority of participants hired after graduation (~60%) were hired in less than three months. Aguinis and Gottfredson's (2010) best practices for moderated multiple regression state that "statistical power is enhanced when total sample size increases and when the subgroup proportions approach .50 (i.e., similar number of individuals in each of the moderator-based subgroups) (Aguinis & Gottfredson, 2010, p.780). In order to reach a cell size suitable to power

the of test my proposed moderator, I dichotomized this job search length variable into at or before graduation and after graduation (coded as 0/1).

In recognition of the caution against overuse of control variables in the literature (Becker, 2005; Carlson & Wu, 2012), I control only for variables that can be expected to affect both my independent and dependent variables. These variables include: grade-point average (GPA), major, survey year, and Pell Grant status. The Federal Pell Grant is a subsidy program that provides need-based grants to low-income undergraduate students (Federal Student Aid, 2022) and thus is used a proxy for socioeconomic status. For both regressions, these controls may be related to both the independent and dependent variables. Hispanic job seekers may have lower GPAs than White job seekers due in part to continued systemic barriers to success in higher education for Hispanics (Berry et al., 2011). GPA might also be a signal of job seeker competence and thus may also be related to starting salary and job search length. Hispanic students may have a higher presence in lower-paying majors as was found in Free et al.'s (2007) study, so I controlled for this by calculating the average salary reported within each academic major and sorted these majors into low and high paying majors (below or above the overall average salary of $52,801/year). We know from national trends that there is a Hispanic-White income gap. It follows that Hispanic parents have less income to put towards their children's' undergraduate degrees, so controlling for Pell Grant eligibility as a proxy of socioeconomic status is justified.

Finally, survey year may affect both my independent and dependent variables as the COVID-19 pandemic began in 2020. Some of the graduates entered the job market during the COVID-19 pandemic, and while this project does not focus specifically on the effects of the pandemic, survey year is included in the dataset and thus can be used as a control variable with

the pre-pandemic year of 2019 serving as the reference group to compare to 2020 and 2021. The drop in hiring rates during the pandemic likely made for longer job search lengths than those of pre-pandemic times for all job seekers, and historically treatment of marginalized groups is exacerbated during times of crisis as resources and relief are often not equitably allocated (Ashworth et al., 2021). It is especially important to investigate Hispanic NE experiences on the job market during this period of hardship, as they may have been disproportionally affected. While there is now evidence for differing rates of reemployment in the early months of the pandemic (BLS, 2022), these data are largely based off of workers who were previously employed and lost their jobs (rather than NEs).

The disruption of the pandemic could have affected the number of White and Hispanic students graduating, and NEs may have had longer job search lengths during this time as well. By controlling for these variables, I can more clearly compare the job search lengths and starting salaries of Hispanic and White NE's.

MEASURES

Racioethnicity

While this survey did not directly ask students to report their racioethnicity, they did report their student ID numbers which were used to pull the racioethnicity data they previously provided to the university and match these data to their survey responses. Response options for racioethnicity provided by the university included: Caucasian, African American, Hispanic, Asian or Pacific Islander, two or more races, and International.

Salary

Participants responded to the item "What is your post-graduation annual base salary amount in US dollars? (e.g. 50000, not $50,000)" in a small text box using only numbers. They also responded to two follow-up questions pertaining to signing bonuses and other compensation (i.e. relocation stipends). For the purposes of this study, I will focus only on base salary as it represents consistent income whereas bonuses and stipends may be contingent on the employee staying with the organization for a certain amount of time.

Job Search Length

Participants were asked to self-report job search length by answering two questions. They first answered the question: "When were you hired?". They responded with either "At or before graduation" or "After graduation". For those who were hired after graduation, they answered a follow-up question: "How long after graduation were you hired?". This question was presented in multiple choice format with the response options as: less than 3 months; 3-6 months; 6-12 months; longer than 12 months. As mentioned above, I dichotomized this job search length

variable into at or before graduation and after graduation (coded as 0/1) in order to reach suitable cell sizes for the proposed analysis.

Internship Experience

Participants responded to the multiple-choice question "Did you complete any experiential education (internships, co-ops, UPIP, etc) prior to graduation?" with the response options: No; Yes, an internship; Yes, University Professional Internship Program; Yes, cooperative education (co-op); Yes, practicum; Yes, student teaching; Yes, clinical placement. In my analysis, students who answered 'No' are compared to students who answered 'Yes, an internship' or 'Yes, University Professional Internship Program' to test hypothesis 3. 'Yes, an internship' or 'Yes, University Professional Internship Program' were collapsed into one group as they both represent internship experiences. While the other forms of experiential education (co-op, practicum, student teaching, and clinical placement) may provide valuable experience to students, they can be required and/or an integral part of one's major whereas internships are supplemental to one's education.

RESULTS

Analysis of Missing Data

As previously mentioned, the average response rate to the survey across the five years (2017-2021) was roughly 38%. I examined the data for response differences in two ways. First, I looked at the likelihood of White and Hispanic graduates to participate in the survey overall by comparing the total number of graduates with the number of graduates who responded to the survey. I tested for differences in response rate between the two groups using a chi-square test of independence. There were no differences between White and Hispanic graduates in survey response rate ($\chi 2 = .75$, $p > .05$).

Next, I examined likelihood to respond to the items for the three key variables of this study: salary, job search length, and internship experience. The results for the salary variable indicate that there was no significant difference in likelihood to respond between White and Hispanic participants ($\chi 2 = 3.7$, $p = .054$). The results for the job search length variable indicate that there was no significant difference in likelihood to respond between White and Hispanic participants ($\chi 2 = 2.7$, $p = .098$). Finally, results for the internship experience variable also indicate no significant different in likelihood to respond between White and Hispanic participants ($\chi 2 = 3.7$, $p = .052$). While the results for all three variables are close to traditional levels of significance, chi-square tests can be sensitive to sample size (Bearden et al., 1982), making them more likely to be significant with larger samples. Thus, p-values might be small due to the relatively large sample size in these analyses.

Power Analysis

A post-hoc power analysis was conducted using G*Power version 3.1 (Faul et al., 2009) for sample size estimation. I specified a small effect size (.05), a significance criterion of $\alpha = .05$, and power = .80. The minimum sample size needed with this effect size is 222. Thus, the obtained sample size of n=650 is adequate to test the study hypotheses.

Racioethnicity and Salary

Before testing the hypothesized relationship between racioethnicity and salary, I checked the skew and kurtosis of the salary distribution and found that it was positively skewed and leptokurtic (skewness=1.31; kurtosis=13.3). I log-transformed the variable to make it more normal (skewness=-0.8; kurtosis=5.5), and I tested the hypothesized relationship with both the unlogged and logged data. There were no meaningful differences in results using the unlogged vs. logged data, so the unlogged results are reported below. An ordinary least squares regression model was used to predict NE's starting salary form their racioethnicity controlling for major, Pell Grant status, survey year, and GPA (see Table 2). The model explained a significant amount of the variance in starting salary, $F(6, 643) = 48.88$, $p<.01$, $R^{2.} = .31$, $R^2_{adj} = .39$. Racioethnicity was not a significant predictor of staring salary, $\beta = 310.24$, $p>.05$, 95% CI[-2,358.29, 2,978.76]. Starting salary was about $310 more per year on average for Hispanic participants relative to their White counterparts. See Table 2. Results were also not significant for the control variables GPA, Pell Grant status, and survey year. However, the control variable of major (low vs. high-paying) was significantly related to salary as would be expected given the coding of the variable reflects higher- vs. lower-paying majors.

Racioethnicity and Job Search length

I performed logistic regression to ascertain the effects of racioethnicity, internship experience, and their interaction on the likelihood of graduate NEs being hired before/at

graduation or after graduation. I also included the potential control variables mentioned above including Pell Grant status, GPA, major, and survey year.

The hypothesized model explained approximately 37% (Nagelkerke R^2) of the variance in job search length and correctly classified roughly 76% of cases. The hypothesized relationship between racioethnicity and job search length was not significant (b=-.06, OR=0.94, p>.05, 95% CI[.45, 1.93]) nor was the interaction of racioethnicity and internship as related to job search length (b=.83, OR=2.29, p=.12, 95% CI[0.78, 6.62]). Internship experience was significantly related to job search length, with participants who had internship experience being less likely to be hired after graduation than participants without internship experience (OR=0.31, p<.01, 95% CI[.18, .51]). Pell Grant status, survey year, major (low versus high-paying), and GPA were not significantly related to job search length (see Table 3).

DISCUSSION

The initial entrance to the job market following completion of an undergraduate degree is a critical time, especially for racioethnic minorities who historically are paid less and face more challenges on the job market than their White peers (BLS, 2021; King et al., 2006). Most research on graduate NE experiences focuses on salary as a key outcome. A higher starting salary provides financial security immediately and also sets a precedence of pay that allows the NE to negotiate an even higher salary through future raises. However, starting salary is not the only aspect of the NE experience that plays a role in financial security. Time spent job searching before being hired is an investment in itself. NEs on the job market are going through a potentially stressful process (McKee-Ryan, 2005) and are not earning a full-time salary while job searching. It follows that one's job search length is also a key outcome to consider. I examined data from a sample of Hispanic and White graduates who entered full-time jobs following their graduation from a Southeastern university in the United States. Through this secondary data analysis, I aimed to 1) assess new entrant job outcomes for Hispanic and White graduates in terms of starting salary and job search length and 2) examine internship experience as a potential moderator of the relationship between racioethnicity and job search length, and 3) contribute to our understanding of this critical NE period and how it looks different/similar for White and Hispanic graduates.

I hypothesized that Hispanic NEs would receive lower starting salaries and have longer job search lengths than their White peers, and I also hypothesized that internship experience would moderate the relationship between racioethnicity and job search length such that the

White-Hispanic gap in job search length for Hispanic NEs with internship experience. The results of my analyses did not support my hypotheses, as there was no significant difference between Hispanic and White NEs in starting salary (Hypothesis 1) nor job search length (Hypothesis 2). While internship did have a direct relationship with job search length, it did not act as a moderator of the relationship between racioethnicity and job search length (Hypothesis 3). However, the proposed model does provide some insights about variables that do affect starting salary and job search length regardless of one's racioethnic identity.

Average starting salary varied by academic major, with some majors having starting average starting salaries around $30,000 per year (e.g., special education) and others having average starting salaries around $60,000 per year (systems engineering), and this aligns with Free and colleagues' (2007) study that examined White-Hispanic differences in expected starting salary by major. While their study was limited by their use of expected (rather than actual) starting salary, they found that differences in expected salary for White and Hispanic men such that Hispanic men tended to have academic majors with lower expected salaries than White men. This effect did not exist for White and Hispanic women, however. It is possible that the present model did not detect racioethnic differences in starting salary that were only present in men because the model did not include gender as variable. The direct effect of internship experience played a larger role in the job search length model, with NEs who had internship experience being more likely to be hired at or before graduation. While these findings do not support the intended contributions of the research, they can be used to help guide future research on the job search experience and outcomes of NEs.

Limitations

The limitations to this project mainly stem from measurement issues and non-response bias in the selected dataset. The survey items were not well crafted. For example, the ordinal nature of response options to the main dependent variable of interest, job search length, limited the variance in participant responses. Job search length was measured in ordinal categories, so the actual amount of time on the job market was not obtainable. Within the 'after graduation' group there were also several unequal ordinal categories: less than 3 months; 3-6 months; 6-12 months; longer than 12 months. Beyond the ordinal nature of the data, the low number of responses in the longer job search length categories also acted as a limitation. Given that very small percentages of respondents had job search lengths in the 'after graduation' categories, I had to create just two unequal categories of at or before graduation or after graduation. When examined by racioethnicity and internship experience, the cell sizes were also not large enough to justify testing the proposed moderation (Aguinis & Gottfredson, 2010). While most NEs interested in pursuing full-time employment likely start their job search before graduation (e.g., attending career fairs), not all NEs are starting the job search process at the same time. Some NEs may start job search months before graduation, weeks before, or even after graduation, so this variable was only a proxy of true job search length. Going forward, it would be ideal to measure this job search length continuously by number of days or weeks spent job searching. This measurement could be obtained proactively by asking rising NEs to report the start and end of their job search or retroactively by asking NEs to recall the number of weeks they spent job searching. The former option faces a greater threat of attrition but may result in more accurate reports of job search length than the latter option which relies on participant memory.

Non-response to the survey in general and to specific items on the survey was another substantial limitation. There are several potential explanations why graduate NEs may not have

responded to the survey or only responded to certain questions. These include but are not limited to: no longer checking their university email inboxes, being too busy acclimating to a new job or job searching, or a preference not to share sensitive information about their employment with their university. While the missingness of data was not systemically different by racioethnicity, it did limit the power to detect interaction effects by decreasing the subgroup sample size and created a need to dichotomize the job search length variable. The third key limitation to this study is unique from the previous two in that it creates a clear opportunity for future research directions (see more below). Two variables could be better utilized in future models (academic major and internship experience). By incorporating these variables into future models more meaningfully, we may be able to make more accurate predictions about the job search experiences of NEs and draw clearer implications from findings.

Future Directions

Job search length is an important career outcome to explore because it can be tied to mental and financial well-being. NEs are an especially relevant group for this line of research as they have already invested money and time into their education, and many undergraduate students are not able to earn a full-time income while attending school. Drawing on what we know from the findings and limitation of this project, I propose two broad strategies for future research on NE job search experiences and outcomes. The first strategy is more feasible if there are resource or time restrictions on the research and involves zooming into one academic major or industry of interest. For example, if the most common academic major for Hispanic students at a given university were nursing, it could be beneficial to assess the starting salaries and job search lengths of Hispanic nursing majors relative to their White counterparts. Relevant experience to the target industry (internship or otherwise) could be built into this research as we

have seen that it does have a direct effect on job search length. This approach could help us better understand how equitable NE job outcomes are within a single area of interest. The second strategy involves zooming out and employing more sophisticated analysis to assess how racioethnicity might be related to starting salary and job search length of NEs across various majors. Hispanic and White graduates can be nested in academic majors at different proportions, and they can have different job search experiences and outcomes when trying to enter their respective industries. Some industries (such as those historically dominated by White men) may prove more challenging to for Hispanic applicants to enter, and having relevant experience such as an internship may play a bigger role in some industries than others. Multilevel modeling would be well-suited to handle this sort of analysis, but it would require a large enough sample size at level two (academic major), and this may require more time and resources.

Beyond these two broader strategies for future research, there are other groups that could benefit from being included in projects on job search length particularly. For example, job search length may also play a role in the lives of workers who have already been in the workforce for some time or people who are experiencing unemployment. An exploration of job search experiences at various stages of one's career path could shed light on how spending time on the job market affects people similarly or different over time. This research also does not have to be focus only on Hispanic and White workers as this project did. Expanding the scope of study to include other racioethnic groups is another potential avenue of future research. There is evidence showing that Black applicants face similar disadvantages as Hispanic applicants during the application process whereas White and Asian applicants do not (King et al., 2006). Having a better standing of how different racioethnic groups experiences job searching will allow for more specificity in any implications drawn from research in this area.

CONCLUSION

Though we often focus on salary as a key job outcome, it is not the only factor of importance in the job search experience—especially for NEs who are joining the workforce after investing into their education. Looking for a job can be incredibly stressful, as applicants face various stressors that come with being on the job market such as the workload of completing applications and interviewing, receiving rejections from organizations, and passing more time without securing a full-time income. This crucial time in the career paths of college graduates is well-positioned to help Hispanic graduates close the income gap between themselves and their White peers, but it also has the potential to be just another obstacle if NE outcomes are not equitable. The present study, although limited by measurement issues, did not find significant differences between Hispanic and White NEs for the key outcomes of salary or job search length. It does, however, provide insight about levers that affect job search length and starting salary—namely academic major and internship experience. We can leverage this knowledge in constructive replications of this research, and with further evidence, universities may be able to draw on findings and better support their NEs during their time on the job market.

REFERENCES

Aguinis, H., & Gottfredson, R. K. (2010). Best-practice recommendations for estimating interaction effects using moderated multiple regression. *Journal of organizational behavior*, *31*(6), 776-786.

Ali, A. A., Ryan, A. M., Lyons, B. J., Ehrhart, M. G., & Wessel, J. L. (2016). The long road to employment: Incivility experienced by job seekers. *Journal of Applied Psychology*, *101*(3), 333.

Aliprantis, D., & Carroll, D. R. (2019). What Is Behind the Persistence of the Racial Wealth Gap? Economic Commentary, (2019-03).

Ashworth, H., Soled, D., & Morse, M. (2021). Rethinking the Principle of Justice for Marginalized Populations During COVID-19. *Journal of Law, Medicine & Ethics, 49*(4), 611-621.

Avery, D. R. (2003). Reactions to diversity in recruitment advertising--are differences black and white? *Journal of Applied Psychology, 88*(4), 672.

Barber, A. E., Daly, C. L., Giannantonio, C. M., & Phillips, J. M. (1994). Job search activities: An examination of changes over time. *Personnel Psychology, 47*, 739-766.

Bearden, W. O., Sharma, S., & Teel, J. E. (1982). Sample size effects on chi square and other statistics used in evaluating causal models. *Journal of marketing research, 19*(4), 425-430.

Becker, T. E. (2005). Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. *Organizational research methods*, *8*(3), 274-289.

Berry, C. M., Clark, M. A., & McClure, T. K. (2011). Racial/ethnic differences in the criterion-related validity of cognitive ability tests: A qualitative and quantitative review. *Journal of Applied Psychology*, *96*(5), 881.

Bureau of Labor Statistics, 2021. Table 3. Median usual weekly earnings of full-time wage and salary workers by age, race, Hispanic or Latino ethnicity, and sex, second quarter 2021 averages, not seasonally adjusted. (n.d.). Retrieved September 10, 2021, from https://www.bls.gov/news.release/wkyeng.t03.htm

Boswell, W. R., Roehling, M. V., LePine, M. A., & Moynihan, L. M. (2003). Individual job-choice decisions and the impact of job attributes and recruitment practices: A longitudinal field study. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, *42*(1), 23-37.

Boswell, W. R., Zimmerman, R. D., & Swider, B. W. (2012). Employee job search: Toward an understanding of search context and search objectives. *Journal of Management, 38*(1), 129-163.

Callanan, G., & Benzing, C. (2004). Assessing the role of internships in the career-oriented employment of graduating college students. *Education + Training, 46*(2), 82-89.

Carlson, K. D., & Wu, J. (2012). The Illusion of Statistical Control: Control Variable Practice in Management Research. *Organizational Research Methods, 15*(3), 413–435. https://doi.org/10.1177/1094428111428817

Chi, C.G. and Gursoy, D., 2009), "How to help your graduates secure better jobs? An industry perspective", *International Journal of Contemporary Hospitality Management*, *21*(3), 308-322. https://doi-org.librarylink.uncc.edu/10.1108/09596110910948314

Cox, T. H., & Blake, S. (1991). Managing cultural diversity: Implications for organizational competitiveness. *Academy of Management Perspectives*, *5*(3), 45-56.

DiPrete, T. A., & Eirich, G. M. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. Annu. Rev. Sociol., 32, 271-297.

Gault, J., Leach, E., & Duey, M. (2010). Effects of business internships on job marketability: The employers' perspective. *Education + Training, 52*(1), 76-88

Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality–motivational analysis and meta-analytic review. *Journal of Applied Psychology*, *86*(5), 837.

King, E. B., Mendoza, S. A., Madera, J. M., Hebl, M. R., & Knight, J. L. (2006). What's in a name? A multiracial investigation of the role of occupational stereotypes in selection decisions. *Journal of Applied Social Psychology, 36*(5), 1145-1159.

Mau, W. C., & Kopischke, A. (2001). Job search methods, job search outcomes, and job satisfaction of college graduates: A comparison of race and sex. *Journal of Employment Counseling, 38*(3), 141-149.

McKee-Ryan, F., Song, Z., Wanberg, C. R., & Kinicki, A. J. (2005). Psychological and physical well-being during unemployment: a meta-analytic study. *Journal of Applied Psychology*, *90*(1), 53.

McKernan, S. M., Ratcliffe, C., Steuerle, C. E., & Zhang, S. (2013). *Less than equal: Racial disparities in wealth accumulation.* Washington, DC: Urban Institute.

National Association of Colleges and Employers (2008), Experiential Education Survey, available at: www.naceweb.org

National Association of Colleges and Employers (2009), Job Outlook 2009, available at: www.naceweb.org

National Center for Education Statistics, (2016). Indicator 30: Earnings and employment. *U.S. Department of Education.*

National Center for Education Statistics, (2019). College Enrollment Rates. *U.S. Department of Education.*

Neckerman, K. M., & Torche, F. (2007). Inequality: Causes and consequences. *Annu. Rev. Sociol.*, *33*, 335-357.

Oliver, M. L., & Shapiro, T. M. (2019). Disrupting the racial wealth gap. *Contexts, 18*(1), 16-21.

Ployhart, R. E., & Holtz, B. C. (2008). The diversity–validity dilemma: Strategies for reducing racioethnic and sex subgroup differences and adverse impact in selection. *Personnel Psychology, 61*(1), 153-172.

R Core Team (2022). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

Shore, T., Tashchian, A., & Forrester, W. R. (2021). The influence of resume quality and ethnicity cues on employment decisions. *Journal of Business Economics and Management*, *22*(1), 61-76.

van Hooft, E. A., Kammeyer-Mueller, J. D., Wanberg, C. R., Kanfer, R., & Basbug, G. (2021). Job search and employment success: A quantitative review and future research agenda. *Journal of Applied Psychology, 106*(5), 674.

Van Hoye, G., Klehe, I. U., & van Hooft, E. A. J. (2018). Job search behavior as a multidimensional construct: a review of different job search behaviors and sources. *The Oxford handbook of job loss and job search*, 259-274.

Van Hoye, G., Van Hooft, E. A. J., & Lievens, F. (2009). Networking as a job search behaviour: A social network perspective. *Journal of Occupational and Organizational Psychology, 82*, 661-682.

Wanberg, C. R., Basbug, G., Van Hooft, E. A. J., & Samtani, A. (2012). Navigating the black hole: Explicating layers of job search context and adaptational responses. *Personnel Psychology, 65*(4), 887–926. http://dx .doi.org/10.1111/peps.12005

Wanberg, C. R., Glomb, T. M., Song, Z., & Sorenson, S. (2005). Job-search persistence during unemployment: A 10-wave longitudinal study. *Journal of Applied Psychology, 90*(3), 411- 430.

Wei-Cheng, M., & Kopischke, A. (2001). Job search methods, job search outcomes, and job satisfaction of college graduates: A comparison of race and sex. *Journal of Employment Counseling, 38*(3), 141-149. doi:http://dx.doi.org.librarylink.uncc.edu/10.1002/j.2161-1920.2001.tb00496.x

Welcome | Federal Student Aid. (2022). Retrieved October 23, 2022, from https://studentaid.gov/welcome/?redirectTo=%2Funderstand-aid%2Ftypes%2Fgrants%2Fpell

Werbel, J. D. (2000). Relationships among career exploration, job search intensity, and job search effectiveness in graduating college students. *Journal of Vocational Behavior, 57*(3), 379-394.

Yang, E., & Gysbers, N. C. (2007). Career transitions of college seniors. *The Career Development Quarterly, 56*(2), 157-170.

Table 1

List of All Participant Majors

Business	Language & Humanities	Engineering & Technology	Arts	Health Sciences & Services	Natural Sciences
Accounting	Africana Studies	Architecture	Art	Athletic Training	Biology
Business Analytics	Anthropology	Civil Engineering	Art History	Exercise Science	Chemistry
Economics	English	Civil Engineering Technology	Dance	Health Systems Management	Earth & Environmental Sciences
Finance	French	Electrical Engineering	Graphic Design	Nursing	Earth Sciences
International Business	German	Electrical Engineering Tech	Music	Public Health-BSPH	Environmental Studies
Management	History	Lead Innov Tech Div	Theatre	Respiratory Therapy	Geography
Management Information Sys	International Studies	Mechanical Engineering	Video Production	RN BSN Completion	Geology
Marketing	Japanese	Mechanical Engineering Tech		Social Work	Meteorology
Operations & Supply Chain Mgmt	LACS: Business Languages	Systems Engineering			Neurodiagnostics & Sleep Science
	LACS: German for Engineering				Physics
	LACS: Translating				
	LACS: Translating Germ-Engl				
	LACS: Translating Japn-Engl				
	LACS: Translating Russ-Engl				
	LACS: Translating Span-Eng				
	Latin American Studies				
	Philosophy				
	Religious Studies				

Social Sciences	Communications	Computers & Math	Construction	Community Services	Education
Child & Family Development	Communication Studies	Computer Engineering	Construction Management	Criminal Justice	Elementary Education
Political Science		Computer Science		Fire Safety Engineering Tech	Middle Grades Education
Psychology		Cyber Security			Special Ed-Elementary Ed Dual
Sociology		Game Design and Development			Special Education
		Mathematics			

	Mathematics for Business			

Table 2

Regression results using salary as the criterion

Predictor	*b*	*b* 95% CI [LL, UL]	sr^2	sr^2 95% CI [LL, UL]	Fit
(Intercept)	49279.72**	[46142.18, 52417.26]			
Racioethnicity	310.24	[-2358.29, 2978.76]	.00	[-.00, .00]	
Language & Humanities	-10720.57**	[-14956.63, -6484.51]	.03	[.01, .05]	
Engineering & Technology	11127.09**	[8323.89, 13930.28]	.06	[.03, .09]	
Arts	-13274.31**	[-22544.43, -4004.20]	.01	[-.00, .02]	
Health Sciences & Services	-1279.77	[-4484.35, 1924.81]	.00	[-.00, .00]	
Natural Sciences	-8681.62**	[-14141.79, -3221.44]	.01	[-.00, .02]	
Social Sciences	-7309.04**	[-11582.31, -3035.77]	.01	[-.00, .02]	
Communications	-9920.39**	[-14916.12, -4924.65]	.02	[.00, .03]	
Computers & Math	12027.33**	[8716.10, 15338.56]	.05	[.02, .08]	
Construction Management	4533.85	[-3665.00, 12732.71]	.00	[-.00, .01]	
Community Services	-7754.24*	[-14421.16, -1087.31]	.01	[-.00, .01]	
Education	-15813.18**	[-20733.53, -10892.84]	.04	[.02, .07]	
Pell eligibility	-139.61	[-2091.88, 1812.65]	.00	[-.00, .00]	
GPA	0.55	[-0.19, 1.28]	.00	[-.00, .01]	
Survey Year: 2019	2509.61*	[191.56, 4827.66]	.00	[-.00, .01]	
Survey Year:	944.94	[-1327.28,	.00	[-.00, .00]	

	2020	3217.15]	
			R^2 = .350** 95% CI[.28,.39]

Note. A significant *b*-weight indicates the semi-partial correlation is also significant. *b* represents unstandardized regression weights. sr^2 represents the semi-partial correlation squared. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. Reference groups for categorized variables are: business major, White, noneligible for Pell Grant, and 2021. Please see Appendix for full list of majors and their categorization. * indicates $p < .05$. ** indicates $p < .01$.

Table 3

Regression Results using Job Search Length as the Criterion

Predictor	*b*	*OR*	*OR* 95% CI [LL, UL]	Variance
(Intercept)	-.08	1.09	[.54, 2.17]	
Racioethnicty	-.06	.94	[.45, 1.93]	
Internship Experience	-1.18**	.31	[.18, .51]	
Racioethnicity:Internship Experience	.83	2.29	[.78, 6.62]	
Pell Grant Eligible	-.05	.94	[.61, 1.45]	
Language & Humanities	-.03	.72	[.28, 1.76]	
Engineering & Technology	-.10	.90	[.49, 1.68]	
Arts	.04	1.04	[.12, 7.20]	
Health Sciences & Services	-.80*	.45	[.21, .95]	
Natural Sciences	.90	2.71	[.79, 10.12]	
Social Sciences	.43	1.54	[.64, 3.70]	
Communications	1.61**	4.99	[1.67, 16.28]	
Computers & Math	.24	1.27	[.63, 2.58]	
Construction Management	-.18	1.48	[.02, 24.50]	
Community Services	.25	1.28	[.30, 5.13]	
Education	-1.10	.31	[.07, 1.10]	
Survey Year:2019	-.19	.00	[.00,.00]	
Survey Year:2020	-.39	.67	[.44, 1.03]	
				Nagelkerke Pseudo R^2 = .369**

Note. n=650. b represents unstandardized regression weights. OR represents odds ratios. LL and UL indicate the lower and upper limits of a confidence interval, respectively. Reference groups for categorized variables are: business major, White, noneligible for Pell Grant, and 2021. Please see Appendix for full list of majors and their categorization. * indicates $p < .05$. ** indicates $p < .01$.

Table 4

Proportion of Participants by Racioethnicity and Search Length

	Search Length				
Racioethnicty	1	2	3	4	Grand Total
White	424	65	45	13	547
Hispanic	72	19	7	5	103
Grand Total	496	84	52	18	650

Table 5

Revised Proportion of Participants by Racioethnicity and Search Length

	Search Length		
Racioethnicty	1	2	Grand Total
White	424	123	547
Hispanic	72	31	103
Grand Total	496	154	650

Figure 1 Full Model of Hypothesized Relationships

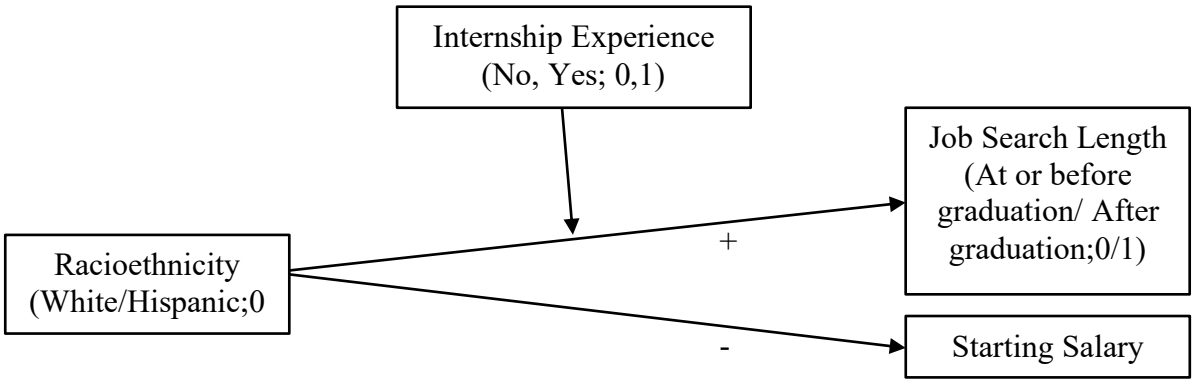
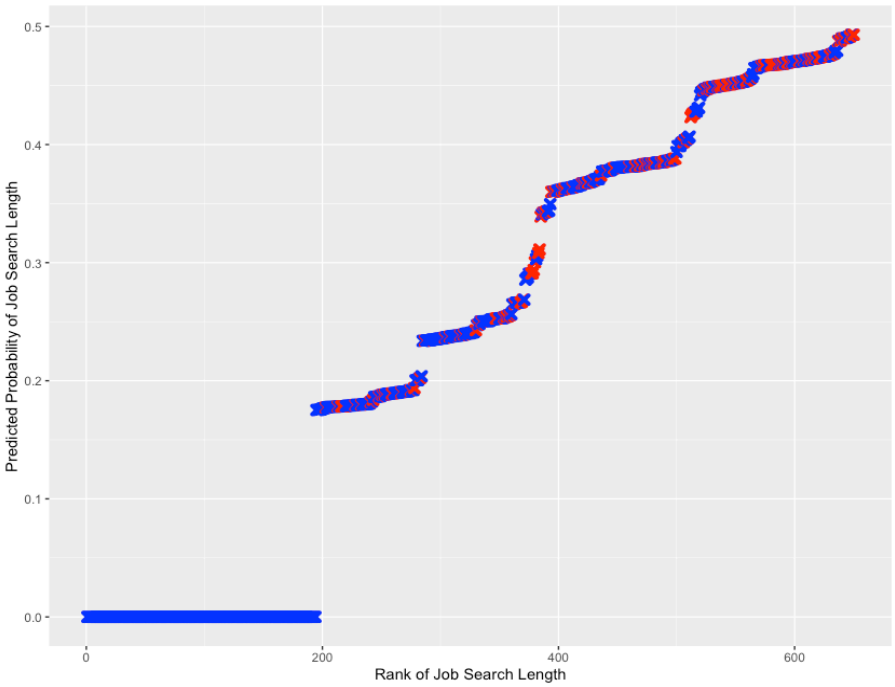


Figure 2 Predicted & Actual Job Search Length



Job Search Length

X= At or before graduation

X=After graduation

APPENDIX: Survey Excerpt

1. Which of the following BEST describes your PRIMARY status after graduation?
    a. Full-time Employment (on average 30 hours or more per week)
    b. Part-time Employment (on average less than 30 hours per week)
    c. Participating in a volunteer or service program (e.g., Peace Corps)
    d. Serving in the U.S. military
    e. Enrolled in a program of continuing education (e.g., graduate school)
    f. Seeking employment
    g. Starting a new business
    h. Planning to continue education but not yet enrolled
    i. Not seeking employment or continuing education at this time
2. What is your post-graduation annual base salary amount in US dollars? (e.g. 50000, not $50,000)
3. What is your guaranteed signing bonus amount in US dollars, if you are receiving one? (e.g. 8000, not $8,000)
4. If applicable, what is the total amount of all your other guaranteed compensation (relocation, housing subsidy, etc.) in US collars, excluding signing bonus? (e.g. 2000, not $2,000)
5. When did you accept your job offer?
    a. At or before graduation
    b. After graduation
6. How long after graduation were you hired?
    a. Less than 3 months
    b. 3-6 months
    c. 6-12 months
    d. Longer than 12 months
7. Did you complete any experiential education (internships, co-ops, UPIP, etc) prior to graduation?
    a. No
    b. Yes, an internship
    c. Yes, University Professional Internship Program
    d. Yes, cooperative education (co-op)
    e. Yes, practicum
    f. Yes, student teaching
    g. Yes, clinical placement