

## ABSTRACT

Title of Dissertation:                    **INEQUALITY IN THE COLLEGE-TO-CAREER TRANSITION: SELF-SCARRING AND UNDEREMPLOYMENT**

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Doctor of Philosophy, 2020

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A recent college graduate working as a coffee shop barista, earning minimum wage and carrying thousands of dollars in student loan debt, is a familiar trope in conversations about the value of a bachelor’s degree. In the college-for-all era, young people are encouraged to attain a bachelor’s degree to bolster their labor market opportunities (Rosenbaum 2001), yet 42 percent of recent college graduates, and 35 percent of all college graduates, are working in jobs that do not require a college degree (Federal Reserve Bank of New York 2020). The American Dream posits that individual perseverance will lead to increased economic security. Young people invest in college as a pathway to a good job. Why does a degree not equally benefit all graduates, and how do graduates respond when their college investment does not pay off?

I employ restricted-access Monitoring the Future panel data (1976 – 2015) and interviews with 60 recent college graduates to examine how college graduates

transition from school-to-work, and how they respond when it does not go as planned. I contribute to studies of underemployment scarring by extending the context from workplace consequences to individual decision-making, unpacking how and why young people make choices related to their post-graduation employment outcomes. By examining how graduates engage as students and connecting that to post-college employment outcomes, I illustrate how graduates *self-scar* by making choices that diminish their ability to quickly translate their degree into a good job along three dimensions: 1) not engaging in outside-the-classroom activities during college, which are critical for career exposure and career-relevant skill-building; 2) downshifting job expectations in response to underemployment; and 3) making labor market choices that elongate underemployment. However, graduates' decisions are not made in a vacuum, and preexisting inequalities – in economic resources, first generation student status, and social and cultural capital – are often perpetuated in the wake of underemployment. Graduates often blame themselves for their lack of labor market success. This project illuminates how inequality is replicated during the college-to-career transition through graduates' self-scarring decisions and contributes to our understanding of who can achieve economic mobility through returns on a college education.

INEQUALITY IN THE COLLEGE-TO-CAREER TRANSITION:  
SELF-SCARRING AND UNDEREMPLOYMENT

by

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Dissertation submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
2020

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## Dedication

*To my late grandmothers, Barbara Reid and Darla Dernberger,  
who always believed in my utmost potential and encouraged my strong sense of self.*

## Acknowledgements

It takes an academic village to produce a dissertation, and I am immensely grateful for the many people and organizations that have supported this project and contributed to my doctoral education.

First, to the 60 young adults who trusted me with their stories, thank you for candidly describing some painful experiences, walking me through your decisions, and sharing your dreams for the future. Your voices shaped this project. I thoroughly enjoyed getting to know each of you, and I'm celebrating as you embark on your own next endeavors.

It is one of the happiest coincidences that I was assigned to TA for Dr. Meredith Kleykamp's veterans course my first semester of graduate school. You noticed my interests and quickly persuaded me that the military provides a unique and interesting setting to study gender and inequality. Thank you for trusting me as a collaborator, investing in me in countless ways, and showing me how to manage a research project from inception. You patiently talked through my nascent ideas and iterative drafts, and my scholarship is always stronger because of your candid and critical feedback. From small data questions to big career decisions and everything in between, I'm very fortunate to have such an incredible mentor and advisor.

To my committee members, Philip Cohen, Liana Sayer, and Wei-hsin Yu, thank you for all of your support during my time at University of Maryland. Through course seminars, *Contexts*, SocArXiv, and individual conversations, you have each significantly shaped my graduate education. Thank you for reading drafts, providing feedback, kindly answering questions, and serving as great sounding boards.

I'm very grateful to the kind assistance of Kelley Bishop, Director of the University Career Center & The President's Promise, for providing access to the restricted First Destination Survey data and his willingness to have broad conversations about the relationship between college and careers. Six background interviews with additional Career Center Program Directors provided essential contextual information that shaped my interview guide and understanding of the campus landscape. I hope this project is useful to the many Career Center practitioners – at University of Maryland and other institutions – who grapple with elements of the college-to-career transition daily.

I'm honored to have benefitted from the wisdom of several colleagues who generously took me under their wing. I'm especially appreciative of Sarah Damaske, who shared interview recruitment strategies and best practices for constructing an interview guide; and Carrie Shandra, who offered feedback on my interview sampling frame, professional guidance, and is always willing to buy me a drink.

This project was supported financially by a Dissertation Scholar Award from P.E.O. International, a Dr. Ramon Henkel Quantitative Research Fellowship from the Department of Sociology, a Dean's Research Initiative Doctoral Dissertation Grant from the College of Behavioral and Social Sciences, and the Ann G. Wylie Dissertation Fellowship from the Graduate School at the University of Maryland. This funding covered transcription costs, participant payments, and other research expenses along with providing me time to conduct analysis. I'm grateful for this financial support which allowed me to reach key project milestones.

I'm fortunate to have the support of many colleagues, friends, and loved ones who were instrumental in my holistic well-being. Kat Fanlund, thank you for your keen editing eye, your ready willingness to verbally process with me over wine and cheese, and your zest for decompressing with period films. My heartfelt appreciation and gratitude to Mary DeStefano for countless happy hours and for being my grad school comrade from the beginning; Joanna Pepin, for being the best peer mentor and an ideal co-author; my running buddy Katy Stech—our early morning runs kept me sane; Kelsey Michael, for our friend blind date that resulted in one of my most cherished friendships, thank you always being willing to compare notes; Polina Zvavitch, for your wry sense of humor and joining me for many work sessions at La Colombe; Wendie Wachtel, for providing a quiet space to conduct phone interviews; and to the many folks who always take my call and provide other essential sources of support: Layne Amerikaner; Donna Borak; Michelle Kachman, Hannah Levintova; Justin Maietta; Margaret McCarthy; Tai Meah; Sidra Montgomery; and Tim Wolfer.

My parents and sisters cheered me on every step of the way. Thank you for your endless encouragement and honest perspectives. You remind me of my North Star and your love keeps me rooted.

Finally, to my sharpest critic and biggest fan, Tyler Nickerson, thank you for enduring the 5 a.m. alarms that were part of the final push to finish this dissertation. When we moved to D.C. five years ago so I could start this adventure, we had no idea what the next chapter would look like. Thank you for joining me in this leap of faith. You kept me fed and laughing during my PhD journey, for which I will always be grateful.



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## Introduction

The American Dream posits that individual perseverance will lead to increased economic security. Young people invest in college as a pathway to a good job. What happens when that investment doesn't pay off? Characterizing a bachelor's degree as the ultimate path to economic success ignores the challenge of translating that degree into economic security and mobility. The stereotype of a recent college graduate working as a coffee shop barista, earning minimum wage and carrying thousands of dollars in student loan debt, is a pervasive image of the economic challenges facing young adults today. In the college-for-all era, young people are encouraged to attain a bachelor's degree to bolster their labor market opportunities (Rosenbaum 2001), yet 42 percent of recent college graduates, and 35 percent of all college graduates, are working in jobs that do not require a college degree (Federal Reserve Bank of New York 2020).

Multiple structural factors position a college degree as an important labor market signal while its economic value has simultaneously diminished over time. College graduates have many labor market advantages – on average – compared to workers without a degree, but the pervasiveness of underemployment among graduates is of concern given the continued emphasis on college-for-all (Rosenbaum 2001). How do young people respond when they held up their end of the bargain by attending and graduating from college, yet the corresponding end of the social contract – a good job – is unfulfilled? An initial set-back can shape graduates' subsequent job expectations and labor market trajectories. Who is able to recover, and

how do they do it? This project examines why a degree does not equally benefit all graduates, and how graduates respond when their college investment does not immediately pay off.

Using restricted national survey data and 60 interviews with recent graduates, this project illustrates how the college-to-career transition perpetuates inequality. I contribute to studies of underemployment scarring by extending the context from workplace consequences to individual decision-making, unpacking how and why young people make choices related to their post-graduation employment outcomes. By examining how graduates engage as students and connecting that to post-college employment outcomes, I illustrate how graduates “self-scar” by making choices that diminish their ability to quickly translate their degree into a good job along three dimensions: 1) not engaging in outside-the-classroom activities during college, which are critical for career exposure and career-relevant skill-building; 2) downshifting job expectations in response to underemployment; and 3) making labor market choices that elongate underemployment. However, graduates’ decisions are not made in a vacuum, and preexisting inequalities – in economic resources, first generation student status, and social and cultural capital – are often perpetuated in the wake of underemployment. Because graduates blame themselves for a lack of labor market success, responses typically focus on individual choices and not structural inequities.

Encouraging graduates to complete additional internships, maintain optimistic job expectations, or conduct more informational interviews as a way to network focus on individual actions. However, these individual solutions will not address the systemic issue of the return on a college degree decreasing as more people have it

(Horowitz 2018). This means that going to class and obtaining the bachelor's credential is not enough to garner a good job. The bar has been raised because graduates' advantaged peers are not only going to class, they are also completing internships, working in professional-track jobs, and participating in other experiences that will bolster their chance of success post-graduation. After graduation, graduates from high socioeconomic backgrounds have financial support from their parents to take unpaid internships or low-paid entry level jobs that allow them to break into their desired career field. My findings provide support for the *relative education hypothesis* and *effectively maintained inequality* (Horowitz 2018; Lucas 2001; Torche 2011). This project illuminates how inequality is replicated during the college-to-career transition through graduates' "self-scarring" decisions and contributes to our understanding of who can achieve economic mobility through returns on a college education.

### **Theoretical and Substantive Contributions**

This dissertation – through four substantive chapters – extends our understanding of the college-to-career transition by illustrating how graduates can exacerbate the lack of return on investment of their degree through "self-scarring" behaviors. First, Chapter 1 outlines the contours of existing underemployment research, an outcome that is the result of a failed school-to-work transition. This chapter sets the stage for why it's important to study how college graduates *respond* to underemployment. I define underemployment, summarize the causes of underemployment, and illustrate why the consequences of underemployment are a social problem.



Using restricted Monitoring the Future (MTF) panel data, Chapter 2 demonstrates how graduates' perceptions of their job and future job expectations are important mechanisms that shape subsequent career outcomes. I find that graduates who experience underemployment downshift their job expectations, expecting to be underemployed in the future. Perceptions can exacerbate the consequences of underemployment; graduates who view their job as a stepping stone and expect to work their current job most of their life are more likely to expect underemployment in the future. This chapter contributes to the job expectations and underemployment literature by illustrating how *self-scarring* can exacerbate the consequences of underemployment.

Chapter 3 and Chapter 4 draw on 60 interviews with recent University of Maryland graduates. In Chapter 3, I describe how engagement as a student influences what happens after graduation during the college-to-career transition. Because activities that can bolster students' post-college labor market success are not required for graduation, students seeking college as a pathway to mobility miss out on key experiences. Students who engage beyond their coursework—they live in student housing, join student organizations, or work in professional-track jobs—have smoother transitions into the workforce. While campus activities are technically open to all students, institutional gatekeepers and preexisting familial resources shape students' participation. Despite graduating from the same institution with the same degree, students' disparate levels of engagement on campus are key contributors to students from low socioeconomic backgrounds having adverse employment outcomes compared to their more privileged peers. I find that *effectively maintained inequality*

manifests through engagement on campus, which then affects the college-to-career transition and post-graduation employment outcomes. This context is important for understanding the resources available to graduates as they respond to underemployment.

Finally, in Chapter 4, I depict how recent graduates interpret and respond to underemployment. I propose that graduates' responses to underemployment may be *self-scarring* by further exacerbating the consequences of underemployment.

Overwhelmingly, graduates are perplexed at their lack of success in the labor market. Graduates' responses to underemployment can be grouped into three pathways: approaches that buffer the consequences of underemployment, risky tactics that sometimes result in adequate employment, and methods that are self-scarring because they exacerbate the consequences of underemployment. The response strategies available to graduates were shaped by several structural factors, including familial economic resources, narratives about the employability of specific disciplines, and graduates' understanding of the labor market. These findings highlight the importance of considering graduates' own behavior, outside of the workplace, when assessing the consequences of underemployment.

### **Broader Impacts**

This project examines how people who did all the right things to achieve economic security – attend and graduate from college – respond in the aftermath of a failed college-to-career transition. In an era of rising student loan debt (Board of Governors of the Federal Reserve System 2020), an ongoing pandemic, and a national reckoning with racial injustice, the return on investment of a college degree is of

increasing importance. How can institutions, researchers, parents, students, and other stakeholders ensure that students who invest in college are not underemployed after graduation? Two components should be considered.

First, when I talked with 60 recent college graduates about the most valuable aspects of their college degree, no one described the learning that took place in a classroom. Instead, these young adults described leadership opportunities they had on campus, mentors they met through their on-campus jobs, and worldview-changing experiences like study abroad. These experiences sparked passions, introduced them to new people, and cultivated skills they could use in their post-college careers.

The social aspects of college life which are so dangerous during a pandemic – the cramped residence halls, late-night student organization meetings in small offices, and communal dining areas – are instrumental to post-college success. Students build networks with their peers, gain access to university alumni, and find mentors among faculty and staff on campus. These networks provide guidance in identifying career pathways, obtaining summer internships, and learning about job openings.

If campus life as we know it is not an option for the foreseeable future, how can institutions pivot to give students these experiences, bolstering their chances for success post-graduation? Universities are quickly adapting to an online environment. For example, the University of Maryland Career Center has offered job fairs online during the pandemic so that students still have opportunities to connect with employers. It's possible these adaptations may actually decrease inequality. When Career fairs were held in-person, students often spent a long time waiting in line to talk with certain employers, and participation was limited to students who had the

availability to spend an entire afternoon in the student center. In a virtual environment, students can spend 10 minutes in a video chat with an employer from anywhere with an internet connection. If moving engagement opportunities online can increase access, this may help reduce disparities in post-graduation employment outcomes.

Second, the graduates I talked with were shocked at how difficult it was to find a job after graduation. Especially for students who had engaged on campus, earned high GPAs, and were used to being successful, they were perplexed by their inability to find a job. Given that 42 percent of recent graduates are underemployed (Federal Reserve Bank of New York 2020), normalizing the challenges of finding a job after graduation may better prepare students for what to expect during this transition. Just as young people are encouraged to attend college from multiple points of influence (Rosenbaum 2001), advisors, parents, and others could realistically prepare graduates for the bumpy transition into the workforce that many young people experience. If graduates are better prepared for the potential difficulty of finding a job, they may refrain from downshifting their job expectations, which could bolster their job outcomes. Addressing inequalities in the college-to-career transition will be increasingly important as higher education faces heightened scrutiny about the value it offers to students.

# **Chapter 1: Dimensions of Underemployment**

## **Why Study Underemployment? Earnings Don't Tell the Full Story**

There is little agreement on the appropriate outcome(s) of college: social, academic, cultural, civic, and/or economic (Arum and Roksa 2014). However, most metrics – both in academia and public discourse – rely on economic measures of success. Economic indicators of success may include earnings, part-time/full-time status, job prestige, and rates of unemployment and underemployment. These outcomes are intertwined, and it can be difficult to separate the effects of one over another.

The economic value of a college degree is most often measured using earnings as the key outcome (Brand and Xie 2010; Carnevale and Cheah 2015; Hout 2012). This is partly due to its simplicity; it's easy to compare this number across people, occupational sectors, and over time. Colleges report their graduates' earnings as indicators of successfully obtaining employment and use this metric to show the positive return on investment of a degree from that institution (U.S. Department of Education 2018). If only examining earnings, college graduates consistently out-earn those with only a high school diploma, which makes a strong case for going to college (Federal Reserve Bank of New York 2020).

However, earnings are only one measure of economic security. Underemployment is a problem at the individual and collective level for college graduates and is not captured by data limited to earnings information. When the successful outcome is measured by skill utilization – which is one manifestation of

underemployment – the picture is less promising for college graduates. The college-for-all movement has pushed college graduates into lower-skilled jobs, decreasing the economic value of a college degree (Horowitz 2018). The experience of underemployment can contribute to job dissatisfaction, distress, and feelings of relative deprivation, which studies about earnings do not capture (Hardie 2014; Luksyte and Spitzmueller 2011; Merton and Kitt 1950; Steffy 2017). We know less about how college graduates respond in the wake of that underemployment, which is what this project investigates.

### **Defining Underemployment**

*Unemployment* rates are often used by researchers, politicians, and communities as a measure of the economy, but *underemployment* rates are a less common part of the discourse. Economists typically define underemployment dichotomously – someone is underemployed or not – using criteria of wages, intermittent employment, and/or overeducation. The reference group may be an individual’s previous job, an absolute standard (e.g., number of hours worked per week), or others with similar education or work experience (Feldman 1996:387). Sociologists have used many of these same measures, with a particular emphasis on overeducation (Halaby 1994; Horowitz 2018; Smith 1986). Social psychologists expanded the definition of underemployment to include subjective measures, including self-report data on people’s own perceptions of whether they are underemployed (Feldman 1996). While the precise definition of underemployment differs across disciplines, the four most common dimensions are when workers:

- (1) Possess more formal education, higher-level skills, and more extensive work experience than the job requires;
- (2) Are involuntarily employed in a field different than their formal education;
- (3) Are involuntarily employed in temporary, part-time, or intermittent employment; and/or
- (4) Earn 20 percent or less than their previous jobs (Feldman 1996; Maynard, Joseph, and Maynard 2006).

Most underemployment research uses objective measures, although there is increasing attention to subjective measures of underemployment, such as an individual's perception of whether their job maximizes their skills and abilities (McKee-Ryan and Harvey 2011; Scurry and Blenkinsopp 2011). Including subjective measures is essential to ascertain how individuals make sense of their employment situation, as subjective perceptions do not always match objective reality. The interplay between these objective and subjective measures is unclear (Scurry and Blenkinsopp 2011). Two graduates who are objectively underemployed – for example, working as retail associates – may have very different subjective perceptions of whether they see themselves as underemployed. This is further complicated by income; is a graduate who is working in a job that does not require a degree but has a high income considered underemployed (an objective measure)? And, does that person see themselves as underemployed (subjective measure)?

Given these diverse definitions of underemployment, the picture of underemployment differs based on the measurement that is used, age parameters, and the data source. When underemployment is measured as not having a job or working

in a part-time position and wanting a full-time position, underemployment declined from 10 percent during the Great Recession to 6 percent in 2015, according to Current Population Survey (CPS) data (Carnevale and Smith 2015). Another study – also using CPS data – measures underemployment as those who are unemployed, involuntary part-time workers, and those who want a job but have given up seeking work (Gould, Mokhiber, and Wolfe 2018). Gould and colleagues (2018) limit the age parameters to people 21-24 years old who have a bachelor’s degree, but not an advanced degree, and find that underemployment rates were 7 percent in 2000, 9 percent in 2007, peaked at 19 percent in 2011, and decreased to 11 percent in February 2018. Other studies emphasize overeducation as the key aspect of underemployment. When underemployment is defined as having more schooling than the typical worker in their occupation, about 18 percent of college graduates are underemployed based on National Longitudinal Study of Youth 1979 data (Clark, Joubert, and Maurel 2017).

Measurements of underemployment also differ based on how a job is coded as a “college job” or not. Using a proprietary dataset with actual resumes, 43 percent of college-educated workers are underemployed in their first job when the job classification is based on educational requirements listed in job advertisements (Burning Glass Technologies and Strata Institute for the Future of Work 2018). Most studies classify whether a job requires a degree using the Department of Labor’s O\*NET database. The question that is typically used asks workers in each job, “If someone were being hired to perform this job, indicate the level of education that would be required.” Respondents select from twelve detailed education levels,



ranging from less than a high school diploma to post-doctoral training. If more than 50 percent of the respondents working in that occupation indicate that at least a bachelor's degree is necessary, the job is coded as a college job (Abel and Deitz 2016:6–7; Federal Reserve Bank of New York 2020). When this classification is used, 2020<sup>1</sup> underemployment rates are 42 percent for recent graduates (age 22 to 27) and 35 percent for all college graduates (age 22 to 65) (Federal Reserve Bank of New York 2020). The underemployment data from the Federal Reserve Bank of New York combines worker data from CPS and job data from O\*NET; this is considered the best readily-available data and is updated quarterly.<sup>2</sup>

### **Underemployment as Overeducation**

For this dissertation, I define underemployment as those who have a bachelor's degree but are working in a job that does not require a degree, using the O\*NET job coding strategy described above. I'm specifically interested in underemployment in the first several years after graduating from college. This narrows the broader conceptualization of underemployment used by other researchers (Feldman 1996; Maynard et al. 2006). I make this choice for several reasons. One, I'm particularly interested in the labor market outcomes of recent college graduates. Definitions of underemployment that use a worker's previous job as the standard of reference (e.g., earning less than previous jobs) are not relevant for this population. Furthermore, I'm emphasizing the return on educational investment as a pathway to

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<sup>1</sup> The Federal Reserve updates these data quarterly. These numbers reflect underemployment rates in March 2020, before the pandemic – and its related economic changes – took effect.

<sup>2</sup> [www.newyorkfed.org/research/college-labor-market/college-labor-market\\_underemployment\\_rates.html](http://www.newyorkfed.org/research/college-labor-market/college-labor-market_underemployment_rates.html)

economic security and mobility, which makes the mismatch between degree and job the area of interest versus other aspects of underemployment, such as involuntarily working part-time.

Second, the overeducation component of underemployment is what has been of most interest to sociologists as it relates to college graduates (Halaby 1994; Horowitz 2018; Smith 1986), and I build on that literature to examine how college graduates respond to underemployment. Overeducation includes workers involuntarily employed in a field different than their formal education (Feldman 1996; Maynard et al. 2006), however that's not the primary underemployment focus of this project. This is hard to measure (e.g., is a philosophy major working as a social worker underemployed?) and arguably has less of an effect as a social problem. Even if it's not in a graduate's field, the person still has a college job. While I do not use field of study to *define* underemployment, I incorporate college major into my research design as it is a relevant mechanism influencing underemployment. Finally, using overeducation as the measurement of underemployment aligns with the public assumption that the goal of college is to immediately obtain a good job, and this project seeks to intervene in that conversation by highlighting the complexity of the college-to-career transition. *All future references to underemployment in this dissertation imply this specific definition about a college graduate working in a job that does not require a degree.*

## **Causes of Underemployment**

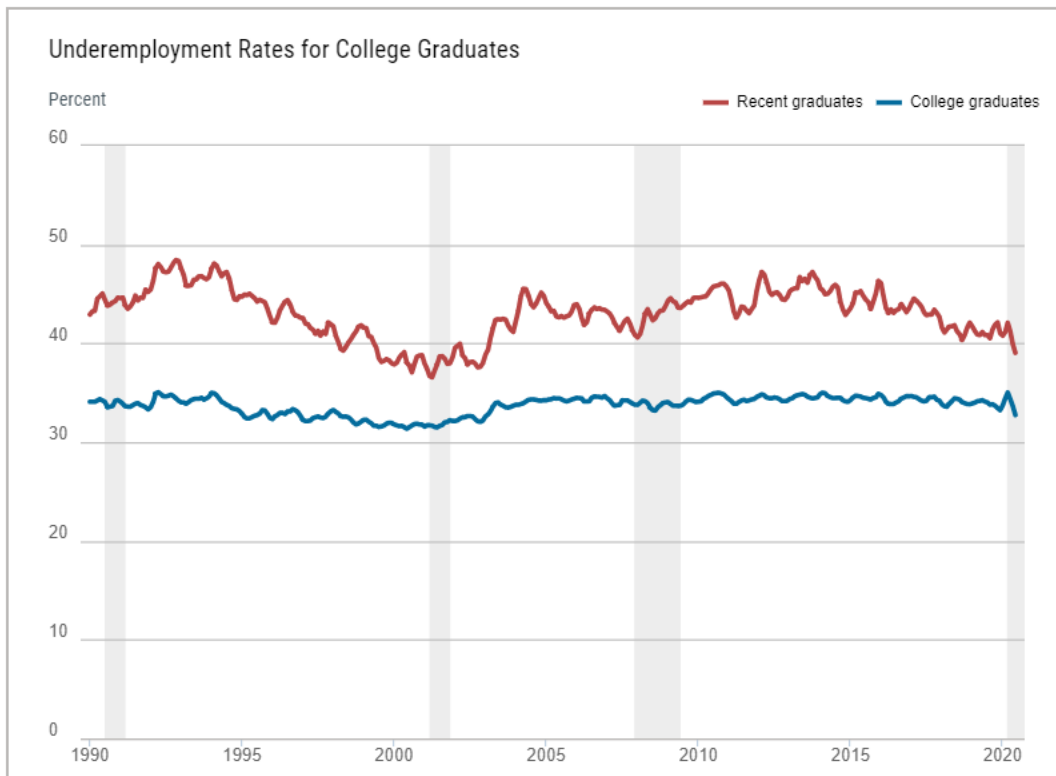
### *School-to-Work Transition*

A college degree is a critical linchpin of pathways to economic mobility and security in the United States. College graduation is a pivotal turning point that marks the transition between two prominent institutions: education and the labor market (Vaisey 2006). The economic return on investment from education is especially salient during the school-to-work transition when college graduates first attempt to translate the institutional capital of their degree to economic capital in the labor market (Bills 2003; Silva 2013). Entering the labor market is a multifaceted matching process between individuals' skills and available jobs (Heinz 2003). However, the interface between school and work is not well defined (Kerckhoff 2003:264) and there are few institutional supports to smooth the transition from school to work (Mortimer, Staff, and Oesterle 2003). In the best-case scenario in which graduates find a good job immediately after graduation, the school-to-work transition is still a stressful process marked by uncertainty and insecurity (Kitchener 2017).

Pervasive underemployment rates among college graduates are evidence of the difficult school-to-work transition. There is not a single, simple reason college graduates are underemployed. Underemployment stems from deeper structural sources, and the dimensions of these structures have changed over time. Underemployment among college graduates is not a short blip only affecting people who graduated during the Great Recession; rates of underemployment are quite stable over time (see *Figure 1.1*). Structural roots of underemployment may include the proliferation of college graduates, economic changes, skill mismatch, disparities in

the quality of higher education, and college major. Theories of human capital, signaling, credentialism, and social capital explain *why* a college degree is rewarded in the labor market. However, these same theories also suggest reasons a college degree has diminished economic value, which can perpetuate inequality in terms of whose degree “pays off” in the labor market.

Figure 1.1. College Graduate Underemployment Rate, 1990-2020<sup>3</sup>



Sources: U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey (IPUMS); U.S. Department of Labor, O\*NET.

Notes: The underemployment rate is defined as the share of graduates working in jobs that typically do not require a college degree. A job is classified as a college job if 50 percent or more of the people working in that job indicate that at least a bachelor’s degree is necessary; otherwise, the job is classified as a non-college job. Rates are seasonally adjusted and smoothed with a three-month moving average. College graduates are those aged 22 to 65 with a bachelor’s degree or higher; recent college graduates are those aged 22 to 27 with a bachelor’s degree or higher. All figures exclude those currently enrolled in school. Shaded areas indicate periods designated recessions by the National Bureau of Economic Research.

<sup>3</sup> This graph is updated quarterly on the Federal Reserve Bank of New York website: [https://www.newyorkfed.org/research/college-labor-market/college-labor-market\\_underemployment\\_rates.html](https://www.newyorkfed.org/research/college-labor-market/college-labor-market_underemployment_rates.html)

## *Human Capital*

Human capital theory suggests that investments in education, training, and skill acquisition result in more productivity, leading to higher wages in the labor market and better life outcomes (Becker 1975; Heckman 2014). From this perspective, obtaining a bachelor's degree should lead to better labor market results for college graduates as they have the potential to be more productive than people without a college degree. A more detailed engagement with human capital theory necessitates differentiating between general and specific training. Specific training increases productivity for a particular job at a certain firm, but is not useful for increased productivity if the worker were to leave the firm; while general training increases a worker's future productivity because the skills can be applied to a number of possible firms. A college education is typically a form of general training, at least in the traditional liberal arts tradition. Workers are willing to incur the direct (e.g., tuition, books) and indirect (opportunity cost of not being employed full-time) expenses of this training because it raises their future wages (Becker 1975). In this market context, employers act rationally by selecting employees on the basis of educational credentials, and people act rationally by investing in education to enhance their own human capital (Bills 2003:444). Human capital – increased education and skills – seems especially relevant in today's knowledge economy and is likely to be rewarded. If that's the case, why are so many college graduates not seeing the economic return on their degree?

College graduates who are underemployed run counter to a basic understanding of human capital theory; they have increased training in the form of

education, but a college degree did not translate to a tangible economic reward in the form of a good job. An underlying assumption of human capital theory is that education, skills, and training are only valuable in the sense that they increase a worker's productivity in the labor market, and therefore these credentials *must be in demand* (Becker 1975). A college degree in the U.S. signifies general educational attainment, which means few students can present potential employers with any kind of vocational skill or occupation-specific credential (Kerckhoff 2003; Mortimer et al. 2003). It's possible that college graduates do not meet the minimum skill qualification for a job, often gained through work experience, and this is leading to initial underemployment. However, specific training is most valuable to employers because it increases a worker's productivity at that particular firm (Becker 1975). Specific training typically comes on-the-job, not from college, so recent graduates may find their human capital in the form of a degree less valuable as there's little firm-specific relevant training. Educational attainment is an imperfect measure of skill endowment, and occupational education requirements do not reflect the skills a worker actually uses on the job, making overeducation an unreliable measure of whether a worker has skills that are not maximized on the job (Halaby 1994:58). Additionally, rational firms are not incentivized to incur the cost of on-the-job training because they lose this investment if a worker leaves (Becker 1975). In the new economy, people have more job mobility over their lifetime (Jarvis and Song 2017); there are declining internal labor markets as career progression is less likely to happen within one firm (Williams, Muller, and Kilanski 2012); and there has been substantial risk shift as workers bear the responsibility of training, healthcare benefits,

and retirement (Hacker 2006; McMillan Cottom 2017). Because of these changing economic structures, employers are not incentivized to invest in training and upskilling of their workers as individuals are bearing the weight of that cost. Furthermore, even the general training that college represents may not actually be increasing skills. One large-scale study of 2,300 students at 24 universities found that college offered little skill attainment in the areas of critical thinking, complex reasoning, and written communication (Arum and Roksa 2011). Therefore, while a college degree at a broad level increases human capital, the lack of specific training most rewarded by employers may be one mechanism leading to college graduate underemployment.

### *Signaling, Screening, and Credentialism*

In the hiring process, employers *screen* and job candidates *signal* to convey information (Bills 2003:446). A college degree may be used as both a screening and signaling device. The value of a college degree may be less about acquired skills and knowledge, as human capital theory suggests, and instead holds value via the signal it sends to employers. The process of getting admitted, and then graduating from, college can act as a “double filter” to employers (Arrow 1973). The degree therefore serves as a shorthand, transmitting information to potential employers such as the applicant’s persistence, productivity, and potential “fit” within an organization (Bills 2003; Bowles and Gintis 1976; Rivera 2015). As employers use imperfect information about individuals to screen applicants during the hiring process, they rely on a college degree to make hiring decisions. Evidence of the “sheepskin effect” shows that people with a diploma earn more than those with the same years of

schooling who do not have a degree (cf. Hungerford and Solon 1987; Jaeger and Page 1996).

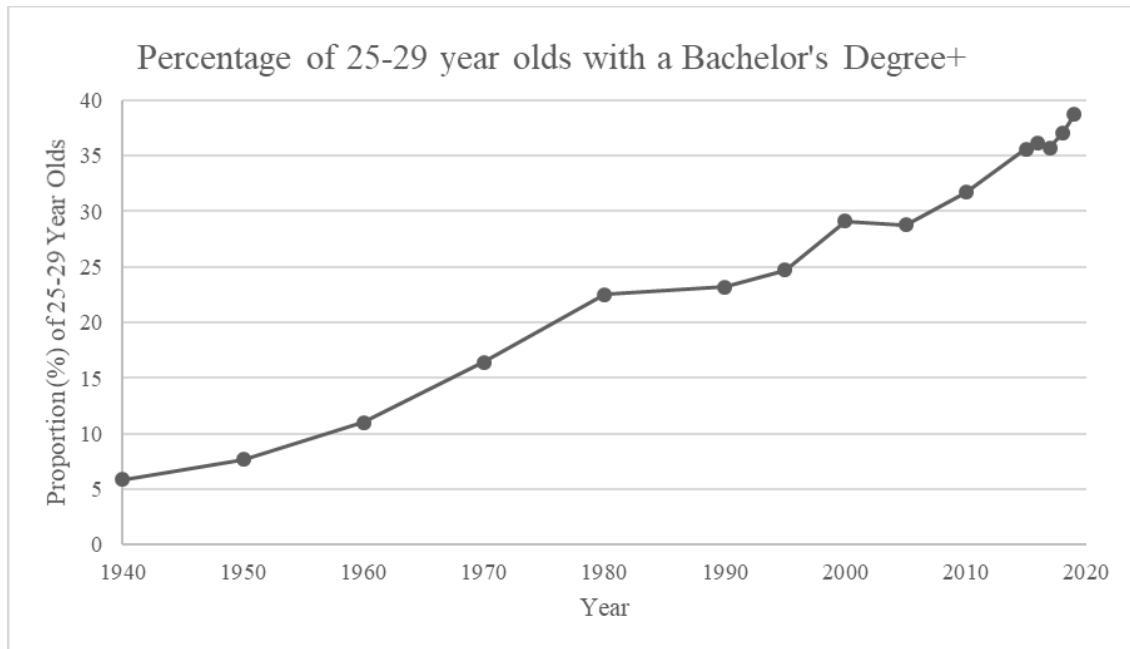
A component of the signaling and screening process also includes the increase in minimum qualifications required for jobs. Certain positions may not actually require a degree to perform the job task adequately, but *credential inflation*, in which employers raise hiring standards over time, is a widespread phenomenon in the contemporary labor market (Berg 1971; Collins 1979; Pappano 2011). Increasing the educational requirements for a job is an easy way to narrow down a large stack of applications. If more jobs require a college degree, it's logical that young people are investing in higher education so they have this credential. At an aggregate level, a degree should translate to benefits in the labor market, yet this does not explain the persistence of college graduate underemployment.

Given the value of a college degree as a signaling and screening device, many young people are encouraged to attend college. The “college for all” movement – in which young people are encouraged by parents, teachers, and guidance counselors to attend college – has pushed more people into higher education (Rosenbaum 2001). The percentage of people with a bachelor's degree increased six-fold between 1940 and 2015, as shown in *Figure 1.2*. Attending college is not bad advice; credential inflation has resulted in more jobs requiring college degrees, even for positions that historically required a high school diploma (Berg 1971; Bills 2003; Collins 1979). However, the rapid increase in college graduates since 1940 means that a degree is less economically valuable when more of an applicant's peers also have a college degree (Horowitz 2018). Colleges and universities expanded to meet the growing



number of potential students. When access to education increases via expanded enrollment, *maximally maintained inequality* suggests socioeconomic inequalities in access to education will reduce (Raftery and Hout 1993). *Effectively maintained inequality* posits that as more students gain access to college, inequality will increase as “economically advantaged families will mobilize their resources to secure quantitatively similar but qualitatively superior educational credentials” (Torche 2011:768). This signaling and screening process thus becomes intertwined with the *selection* process into institutions into higher education.

Figure 1.2. Percentage of 25-29 Year Olds with a Bachelor’s Degree or Higher, 1940-2019<sup>4</sup>



The signal of a college degree implicitly relies on selection, since not everyone has a college degree, and more significantly, not everyone has the same

<sup>4</sup> This graph is produced from National Center for Education Statistics 2019 Table 104.2 data.

status college degree. Students with robust family resources typically attend elite colleges (Rivera 2015), and students with few resources – mostly those from low-income families and people of color – attend for-profit, low-quality colleges (McMillan Cottom 2017). While the signal of a college degree may overall be positive, the heterogeneity in institutional quality and prestige may lead to disparate outcomes among college graduates. Graduates of elite schools benefit from the signal (Rivera 2015), while graduates from low-prestige schools may suffer from an employer’s rational decision that a low-prestige school produces lower-quality workers (Akerlof 1970).

If employers cannot rely on the degree itself as a signal of employability, they use other screening tactics; white collar jobs often require a good “fit,” which may result in demographic diversity but maintains deep-level cultural homogeneity (Rivera 2015:139). However, field experiments, which tend to include a higher proportion of entry-level positions, testing whether employers are attune to college selectivity find inconsistent results (Deterding and Pedulla 2016; Gaddis 2015). Finally, the *relative education hypothesis* suggests that the value of a degree is not absolute, but instead depends on the education levels of one’s peers (Horowitz 2018). Since more workers now have a college degree, the economic value of the credential is diminished, pushing college graduates into lower-skilled jobs (Horowitz 2018). At the same time, underemployment rates have remained consistent (*Figure 1.1*) despite the increase in college attainment (*Figure 1.2*). While the diminished signal of a degree may not be the sole mechanism driving college graduate underemployment rates, more people having the credential means that a bachelor’s degree is now a

“fuzzy signal” to employers (Kerckhoff 2003; Selingo 2016), which could explain why not all college graduates are able to obtain good jobs.

### *Institution Type & College Major*

*Students will not stop going to college, but, “the marginal student in the marginal college in the marginal discipline [will realize] that a college education confers no specific set of opportunities” (Smith 1986:97).*

As institutions of higher education expanded to meet the growing enrollment potential from the college-for-all movement, the prestige of colleges and universities spread across a wide continuum (Labaree 2017). The quality of a college degree thus became quite diffuse, making underemployment a difficult concept to measure because it’s aggregating across many institutional types (Smith 1986:96). Disparities in educational quality have socioeconomic consequences for early labor market outcomes (Griffin and Alexander 1978). At one end of the spectrum graduates from elite institutions get prestigious, high-paying jobs (Binder, Davis, and Bloom 2016; Rivera 2015; Witteveen and Attewell 2017b), and at the other end for-profit colleges of questionable quality recruit the most marginalized with misleading information about job prospects post-graduation (McMillan Cottom 2017). However, national underemployment numbers lump these disparate institutions together, and there are few data sources that include underemployment measures and the specific college/university someone attended.

In addition to institution type, significant attention has been paid to college major by researchers and members of the public. Perhaps a graduate is working as a barista because they majored in a humanities field that has few direct career pathways. There are differences in underemployment rate by major (Federal Reserve

Bank of New York 2020). However, the college major explanation is more complicated than it initially appears. Students who major in certain disciplines that are at high risk for initial underemployment also have some of the highest rates of people who go on to obtain graduate degrees (Federal Reserve Bank of New York 2018). We do not have good data on whether undergraduate students always intended to go on to graduate programs or decided to return to graduate school after lackluster results in the labor market. Additionally, hiring norms vary by industry. A finance major may have a job lined up six months before graduation, while a criminal justice graduate has to undergo a background check that takes a year after graduation to complete (Bishop 2018). Finally, the short-term focus on jobs immediately out of college obscures long-term career outcomes. Students who major in a field with high occupational specificity have better labor market outcomes (jobs with higher education and earnings) in the first year out of college, but have lower growth in occupational status over time; students who majored in low occupationally-specific fields struggle entering the labor market, but have a higher growth rate in occupational status a decade after college graduation (Roksa and Levey 2010). Liberal arts graduates often have better career outcomes over a longer time horizon than those majoring in pre-professional programs, and this is not captured in initial underemployment rates (Abel and Deitz 2016; Aoun 2017; Selingo 2016). In sum, while institution type and college major are important pieces of the underemployment puzzle, they are likely not the only causes of underemployment.

## *Economic Changes*

College graduate underemployment may also be the result of changes in the economic structure. The contemporary social organization of work has changed significantly compared to the stability of the post-World War II economy. This “work transformation” (Williams et al. 2012:551) is branded as the “new economy,” and has four central characteristics: there is more *job mobility* over an individual’s lifetime (Jarvis and Song 2017); there is more *labor flexibility* as contract and temporary work has increased (Kalleberg 2000, 2011); there are *declining internal labor markets* as career progression is less likely to happen within one firm (Williams et al. 2012); and there has been substantial *risk shift* as workers bear the responsibility of training, healthcare benefits, and retirement (Hacker 2006; McMillan Cottom 2017). In addition to the new economy resulting in work being more unstable and precarious, it has simultaneously *reduced the rewards of work*, such as wage mobility over a person’s lifetime (Maume and Wilson 2015). This has been operationalized at the organizational level in several ways: career ladders have been replaced by "career maps" in which employees work with supervisors to outline goals and responsibilities; managers have been replaced by teams; networking is a key mechanism for identifying future opportunities; and work is precarious (Williams et al. 2012).

Although coined as the *new* economy, this risky work arrangement is not new. The stable and secure employment that characterized the second half of the twentieth century after World War II was a market anomaly; precarious and unstable work has been the norm since the origins of the capitalist economy (Beck 2000; Doody, Chen,

and Goldstein 2016). Viewing the “new” economy from this historical perspective illustrates that today’s issues are in fact not new. In the 1500s work was scarce due to a rapid population increase and the development of international trade (Bernstein 1997). This change in work led to “*low wages, a lack of upward mobility, and quick fluctuations in demand and output*” (Bernstein 1997:48, emphasis added). This description characterizes work in the 1500s but could easily be a headline from 2020 about the pitfalls of the gig economy.

If the new economy and the rise of gig jobs were the main cause of college graduate underemployment, there should be a discernable rise in underemployment rates over time. As shown in *Figure 1.1*, this is not the case. Overall, underemployment rates from 1990 to 2020 have remained consistent, with the March 2020 rate for recent graduates (42.1%) comparable to the rate in March 1990 (43.3%) (Federal Reserve Bank of New York 2020). This indicates that college graduate underemployment is not simply a feature of the “new” gig economy.

### *Skill-Biased Technological Change*

Another contributor to college graduate underemployment may be technological change; technology increases labor capacity, which then changes the nature of labor. As humans figured out how to maximize fire, steam, and electricity, the nature of work changed (Aoun 2017). Three major technological shifts have fundamentally changed work throughout history: the steam engine, assembly line, and the smartphone (Davis 2016). However, technological change is not a novel challenge that is unique to graduates in the new economy. Automation has reduced jobs throughout history, and human resistance and fear about job loss is not exclusive to

the contemporary economy. In November 1811 a group of displaced workers broke into a hosiery factory in Nottingham, England to destroy the new machines that took their jobs (Aoun 2017:6). The workers became known as “luddites” and this has been a symbol of resistance to technological displacement ever since (Aoun 2017:6). While previous innovations changed physical labor, information and digital technology have amplified the capacity for mental work (Aoun 2017). The cycles of automation and disruption have sped up in the knowledge economy as machines are poised to replace thinkers; even high paying, prestigious jobs, such as financial analysts on Wall Street, are not safe from the risk of automation and instability (Aoun 2017).

Given these technological changes, it’s possible underemployment is the result of graduates not having the high-demand skills that are most needed in the labor market. The *skill-biased technological change (SBTC) hypothesis* stipulates that new technology creates a demand for highly skilled workers, which then leads to an increase in earnings inequality. While economists have proven this theory to be limited at best, and misleading at worst (Card and DiNardo 2002; Mishel 2014), the framework of SBTC could be extended from wages to underemployment. Perhaps college graduates do not have the skills required for new technology in the labor market. If SBTC were the mechanism leading to college graduate underemployment, underemployment rates would increase with age due to ongoing technological change (Card and DiNardo 2002). Underemployment rates, though, decrease as workers get farther out from graduation, seemingly because of their labor market experience (Federal Reserve Bank of New York 2020). This suggests that SBTC is not the sole force driving underemployment among college graduates.

### *Social Capital*

The economic value of a college degree may also derive from increased social capital. Social capital facilitates the flow of information, having social ties who may exert influence (such as helping an individual get a job), providing social credentials which reflect an individual's access to social network resources, and the reinforcement of identity and recognition (Lin 2001). While attending college, students meet new people, develop relationships with peers and faculty members, and access campus resources, which collectively builds their social network. College may also be a turning point, an event that changes the life course trajectory, altering a person's subsequent life outcomes (Elder and Giele 2009; Sampson and Laub 1993). Especially for students coming from marginalized communities, college may serve as a "knifing off" strategy in which ties with negative connections and behaviors can be severed (Warr 1998). Whether through increased positive social capital or severing ties with negative networks, a college degree should be advantageous for labor market outcomes. However, the facilitation of social capital is not something all college graduates experience while on campus.

Given the selection into different types of institutions, the social capital benefits of a bachelor's degree are not equally shared among all college graduates. Many college social capital-building activities are designed for ideal type students who are living on campus and have few outside responsibilities. Students who are parents, older students returning to school, or those living at home may have a harder time connecting with their peers and the campus resources that are designed to facilitate social capital. For example, low-income women of color who are attending a



for-profit college and drive to an office building to attend a single class are likely accruing little social capital through their college experience (McMillan Cottom 2017). Even public universities serving mostly traditionally-aged students may enact institutional barriers that prevent students of color, and particularly Black men, from accessing career-relevant campus resources (Damaske 2009). In the best-case scenario of educational meritocracy, students from marginalized communities attend, and graduate from, elite colleges. However, there's evidence that students who are attending prestigious colleges from low socioeconomic status backgrounds struggle to acquire cultural capital on campus (Jack 2016; Stuber 2011) and embody "fit" to potential employers upon graduation (Rivera 2015). Therefore, social capital may be another mechanism that facilitates inequality leading to differential outcomes among college graduates.

#### *From Causes to Consequences of Underemployment*

While college-for-all has propelled many students into college, only 36 percent of adults over the age of 25 have a bachelor's degree or higher in 2019 (National Center for Education Statistics 2019). Human capital theory would predict that a college degree should bolster labor market outcomes, on average, for this third of the workforce compared to their non-college-educated peers (Becker 1975). A college degree acts as a signaling and screening device, and should be especially beneficial given credential inflation (Berg 1971; Bills 2003; Collins 1979). College graduates likely have increased social capital, and college itself may be a turning point which positively influences future trajectories (Elder and Giele 2009; Sampson and Laub 1993). These theories explain why a college degree may be economically

valuable, yet college graduate underemployment rates suggest a degree is not always translating into labor market success.

The mechanisms that make a college degree valuable in the labor market also have the potential to diminish its worth. The specific human capital training most rewarded by employers, the fuzzy signal of a degree given their ubiquity, and inconsistencies in building social capital all may contribute to the challenge of translating a degree to a job. While college-for-all has increased access to bachelor's degrees, effectively maintained inequality and horizontal stratification suggest families with the most resources will find ways to secure advantages in the school-to-work transition (Raftery and Hout 1993; Torche 2011). There may be equality of opportunity in terms of college access, but who gets a return on their investment in higher education, and why, are indicative of broader inequality. College degrees are heralded as a key benchmark to achieve economic mobility and security, yet underemployment rates among college graduates have showed little sign of waning since 1990 (Federal Reserve Bank of New York 2020). The underlying causes of underemployment provide context for understanding the school-to-work environment college graduates enter, setting the stage for thinking about how graduates respond to underemployment.

### **Underemployment Consequences as a Social Problem**

Underemployment is a vexing social problem because it has short and long-term effects on people who invested in a tool of mobility – a college education – and do not get the expected economic return on that asset. When a college graduate is underemployed in their first job, there are economic ramifications in terms of lower

earnings and limited job security (Clark et al. 2017). Underemployment can be scarring (Clark et al. 2017), and economic conditions are especially important for young workers (Redbird and Grusky 2016). Underemployment also has mental health and job satisfaction implications. Graduates who are involuntarily underemployed and don't meet their occupational goals have more job dissatisfaction and distress (Hardie 2014; Steffy 2017).

Beyond the individual, there are consequences of college graduate underemployment for other workers. Despite the rapid increase in bachelor's degrees (see *Figure 1.2*), college graduates only comprise about one-third of the workforce in 2019 (National Center for Education Statistics 2019). As bachelor's degree holders, graduates should benefit from the "sheepskin effect" of having a credential (Hungerford and Solon 1987; Jaeger and Page 1996). By definition, an underemployed college graduate is still employed, which makes them more advantaged compared to unemployed workers. While this group may look privileged compared to non-college graduates and unemployed workers, college graduates taking jobs for which they're overqualified has labor market implications. If people with bachelor's degrees take jobs for which they are over qualified, this increases downward pressure on those with less education, declining wages at the bottom of the labor market (Aoun 2017:18).

The consequences of underemployment also manifest through increased risk. The cost to attend college has never been higher (College Board 2019), and people are taking on greater risk via student loans to obtain a college degree. This significant financial investment makes the diminished economic return of a degree increasingly

costly. Americans collectively hold more than \$1.6 trillion in student loan debt, and college graduates have an average debt of \$32,731 per person (Board of Governors of the Federal Reserve System 2017; Hess 2020). More than 60 percent of college graduates under age 30 took out student loans to pay for their education, so within six months after walking across the commencement stage, many graduates face the difficult task of beginning student loan payments (Board of Governors of the Federal Reserve System 2020). Without adequate income, young people struggle to pay off these loans. Among people with student loans, 17 percent were behind on their payments in 2019 (Board of Governors of the Federal Reserve System 2020). This risk is heightened for people of color: of borrowers under age 40, 26 percent of Blacks and 19 percent of Hispanics were behind on their payments compared to seven percent of Whites (Board of Governors of the Federal Reserve System 2020). Similarly, first generation college students – those who are the first in their family to go to college – were more than twice as likely to be behind on payments than their peers (Board of Governors of the Federal Reserve System 2020). Student loan debt can also inhibit other normative adulthood events, resulting in delayed marriage and not being able to buy a home (NeighborWorks America 2018).

Young people invest in college as a pathway to economic security. Students who come from families with chronic long-term economic insecurity that worsened after the Great Recession rely on an “academic elevator” mobility strategy (Schulz and Robinson 2017). These students desire white-collar jobs and see academic credentials as the “magic bullet” to mobility and an upward economic trajectory (Schulz and Robinson 2017:277). When graduates are not able to obtain good jobs,

this threatens the understanding that investment in education will pay off. Long-term underemployment can contribute to political and social disengagement (Rubin 2014:1094), which has community-wide implications.

Finally, college graduates in many ways represent the best-case scenario in that they finished their degree and have a credential. Only 62 percent of first-time, full-time students at four-year degree-granting institutions graduate within six years (National Center for Education Statistics 2020). Many people take on significant student loan debt and do not finish their degree. While there are empirical gaps regarding who make up the underemployed, evidence suggests graduates coming from marginalized communities may disproportionately be overeducated for their current position (Clark et al. 2017). If people of color and graduates from low-income families are more likely to be underemployed, and underemployment is scarring, this suggests the school-to-work transition is another example of education perpetuating inequality (Domina, Penner, and Penner 2017).

### **Underemployment Consequences as a Theoretical Problem**

Conceptual models about the consequences of underemployment highlight three potential scarring effects: job outcomes, career outcomes, and personal outcomes (McKee-Ryan and Harvey 2011). However, theoretical and empirical research about the consequences of underemployment is limited. In a cornerstone article about underemployment, Feldman (1996) states, “we know much more about the existence of empirical relationships regarding underemployment than we do about the theoretical reasons for them” (402). While the field has progressed in the last 20

years, there is still no single overarching theoretical framework, especially about the consequences of underemployment (Feldman 2011).

One of the theoretical gaps includes the behavioral consequences of underemployment. How do people respond to underemployment, and what explains their behavior? (Feldman 2011). Research about underemployment spans “industrial-organizational psychology, labor economics, social psychology, sociology, organizational behavior, human resource management, macroeconomics, industrial and labor relations, community psychology, and public policy” (Feldman 2011:277). Because of these disciplinary orientations, most research about the behavioral consequences of underemployment emphasizes how underemployment affects employers and workplace-related decisions. For example, studies about underemployment often focus on outcomes such as job performance (Feldman 2011); turnover intentions (Maynard et al. 2006); or job satisfaction, job involvement, and organizational commitment (McKee-Ryan and Harvey 2011). In this project, I focus on the behavioral responses of underemployed individuals outside of their work organization, examining how the underemployed themselves shape the scarring effects of initial underemployment.

I expand the concept of scarring effects from workplace contexts to how college graduates interpret and respond to underemployment, how these reactions have changed over time, and how effects differ among social groups. I investigate which tactics cushion or intensify underemployment consequences. Using a mixed methods approach, I examine why a college degree does not equally benefit all graduates, and how graduates respond when their college investment does not

immediately pay off. I show how graduates' responses to underemployment can be self-scarring by exacerbating the consequences of underemployment and that the college-to-career transition replicates inequality. While graduates are encouraged to individually bolster their chances of labor market success, the diminished value of a college degree and the disparities in preexisting resources provide structural constraints, inhibiting graduates' capacity to successfully receive a return on their degree investment.

## Chapter 2: Job Expectations and Post-College Underemployment

### Abstract

Young people are encouraged to attain a bachelor's degree to bolster their labor market opportunities (Rosenbaum 2001), yet 42 percent of recent college graduates, and 35 percent of all college graduates, are working in jobs that do not require a college degree (Federal Reserve Bank of New York 2020). Rates of underemployment among college graduates have remained steady over time, but it's unclear how college graduates interpret and respond to underemployment, and how these responses may mitigate the extent of any scarring effects. Using restricted Monitoring the Future panel data (1976 – 2015), I demonstrate how graduates' perceptions of their job and future job expectations are important mechanisms that shape subsequent career outcomes. I find that graduates who experience underemployment downshift their job expectations, expecting to be underemployed in the future. Finally, expectations can be self-scarring—graduates who previously expected underemployment were more likely to be currently underemployed. This chapter contributes to the job expectations and underemployment literature by illustrating how *self-scarring* can exacerbate the consequences of underemployment.



## Introduction

Underemployment among college graduates – working in a job that does not require a college degree – is a persistent issue with little improvement in the past 30 years (Federal Reserve Bank of New York 2020). Underemployment is a vexing social problem because it can be scarring, with long-term effects that extend throughout a person’s career (Clark et al. 2017). Most of the scholarship about college graduate underemployment focuses on underemployment as the outcome of interest; this is important as we need to understand why roughly 40 percent of recent graduates are underemployed (Abel and Deitz 2016; Abel, Deitz, and Su 2014; Burning Glass Technologies and Strata Institute for the Future of Work 2018; Federal Reserve Bank of New York 2020). I build on this foundation by using underemployment as the starting point and examining how it affects graduates’ future job expectations.

I expand the concept of scarring effects to consider how college graduates interpret and respond to underemployment. I propose that graduates’ responses to underemployment can be *self-scarring* by further exacerbating the consequences of underemployment. I examine four research questions about how college graduates respond to underemployment. First, how does underemployment influence subsequent job expectations? And how do underemployed graduates’ perceptions of their current job influence their job expectations? Second, given the college-for-all push since the 1970s (Rosenbaum 2001), have there been changes over time in how underemployment affects job expectations? Third, how does the relationship between

underemployment and job expectations differ by gender and race? Finally, how do past job expectations and job perceptions affect current employment?

To answer these questions, I use restricted Monitoring the Future (MTF) panel data (1976-2015), which surveys successive annual high school senior cohorts until age 30 (Schulenberg et al. 2018). MTF data are useful for answering these questions as the survey instrument contains detailed questions about job expectations and perceptions of one's current job and economic status. Most research about the scarring of underemployment emphasizes demand-side workplace penalties (McKee-Ryan and Harvey 2011). Expanding the concept of scarring effects to incorporate the supply-side behavior of the underemployed themselves illustrates the importance of graduates' interpretation of their status in shaping their subsequent career outcomes. I find that graduates who experience underemployment downshift their job expectations, expecting to be underemployed in the future. Perceptions can exacerbate the consequences of underemployment; graduates who view their job as a stepping stone and expect to work their current job most of their life are more likely to expect underemployment in the future. Finally, expectations can be self-scarring—graduates who previously expected underemployment were more likely to be currently underemployed. I build on the existing literature about job expectations and underemployment by illustrating how *self-scarring* can influence the consequences of underemployment.

## College Graduate Underemployment as Scarring

An underemployed college graduate working as a barista may be dismissed as inconsequential; perhaps it's a short-term job while the young person plots their next steps. Yet underemployment is a vexing social problem because it has short and long-term effects on people who invested in a tool of mobility – a college education – and do not get the expected economic return on that asset. When a college graduate is underemployed, there are economic ramifications that extend beyond that particular job, such as lower earnings and limited job security throughout their career (Clark et al. 2017). These long-term consequences are called “scarring effects” because the ramifications extend beyond the initial event itself (Clark et al. 2017; Gangl 2006; Oreopoulos, von Wachter, and Heisz 2012). Economic conditions are especially important for young workers, and periods of *unemployment* can be scarring (Gangl 2006; Redbird and Grusky 2016). There is disagreement about how temporary – and thus how scarring – *underemployment* is for college graduates.

These inconsistent results about the scarring of underemployment among college graduates are due to different data sources and measurement techniques. Using American Community Survey data, Abel and Deitz (2016) find that initial underemployment is short-term, with most graduates transitioning to better jobs within five years in the labor market (Abel and Deitz 2016). However, the first job after completing education is a key starting point that can determine a person's subsequent occupational trajectory (Besen-Cassino 2018; Blau and Duncan 1967; Mortimer et al. 2003), and a unique dataset using real resumes finds that those underemployed in their first post-college job are more likely to be underemployed 10

years later (Burning Glass Technologies and Strata Institute for the Future of Work 2018). Field experiments show that workers experience a strong penalty for having excessive skills, education, or experience for their position (Pedulla 2016), and that underemployed college graduates receive 30 percent fewer callbacks than adequately employed graduates (Nunley et al. 2015). Underemployment in a college graduate's first job has scarring effects on future earnings, with an estimated \$10,000 salary difference in the first job that compounds throughout a career (Burning Glass Technologies and Strata Institute for the Future of Work 2018; Clark et al. 2017).

There are also non-economic scarring effects of underemployment. Young people invest in college as a pathway to economic security. Students who come from families with chronic long-term economic insecurity that worsened after the Great Recession rely on an “academic elevator” mobility strategy (Schulz and Robinson 2017). These students desire white-collar jobs and see academic credentials as the “magic bullet” to mobility and an upward economic trajectory (Schulz and Robinson 2017:277). When graduates are not able to obtain good jobs, this threatens the understanding that investment in education will pay off. Long-term underemployment can contribute to political and social disengagement (Rubin 2014:1094), which has community-wide implications. Underemployment also has mental health and job satisfaction implications. Graduates who are involuntarily underemployed and don't meet their occupational goals have more job dissatisfaction and distress (Hardie 2014; Steffy 2017).

Finally, college graduates in many ways represent the best-case scenario in that they finished their degree and have a credential. Only 62 percent of first-time,

full-time students at 4-year degree-granting institutions graduate within 6 years (National Center for Education Statistics 2020). Many people take on significant student loan debt and do not finish their degree (Goldrick-Rab 2016). While there are empirical gaps regarding who make up the underemployed, evidence suggests graduates coming from marginalized communities may disproportionately be overeducated for their current position (Clark et al. 2017). If people of color and graduates from low-income families are more likely to be underemployed, and underemployment is scarring, this suggests the school-to-work transition is another example of education perpetuating inequality (Domina et al. 2017).

### **Self-Scarring Effects: College Graduates' Responses to Underemployment**

Most of the scholarship about college graduate underemployment focuses on underemployment as the outcome of interest; this is important as we need to know how and why about 40 percent of recent graduates are underemployed (Abel and Deitz 2016; Abel et al. 2014; Burning Glass Technologies and Strata Institute for the Future of Work 2018; Federal Reserve Bank of New York 2020). I build on this foundation by using underemployment as the starting point. I emphasize the mechanisms that can buffer or exacerbate the scarring effects of underemployment. How do college graduates respond to underemployment, and what are the implications for their future career trajectories? This remains an under-theorized area of study in terms of why and how some graduates “escape” underemployment while others remain underemployed.

Conceptual models about the consequences of underemployment highlight three potential scarring effects: job outcomes (job attitudes, quality of reemployment,

in-role job performance, job search, intention to quit, and turnover); career outcomes (career attitudes and career outcomes); and personal outcomes (psychological well-being and marital, family, and social relationships) (McKee-Ryan and Harvey 2011:971). We know less about the behavioral consequences of underemployment. How do people respond to underemployment, and what explains their behavior? (Feldman 2011). Existing research about the behavioral consequences of underemployment emphasizes how underemployment affects the demand-side—employers and workplace-related decisions. For example, studies about underemployment often focus on outcomes such as job performance (Feldman 2011); turnover intentions (Maynard et al. 2006); or job satisfaction, job involvement, and organizational commitment (McKee-Ryan and Harvey 2011). In this chapter, I focus on the behavioral responses of underemployed college graduates outside of their work organization, examining how the underemployed themselves – the supply side – shape the scarring effects of underemployment through job expectations.

I expand the concept of scarring effects to consider how college graduates interpret and respond to underemployment. I propose that graduates' responses to underemployment can be *self-scarring* by further exacerbating the consequences of underemployment. I examine four research questions about how college graduates respond to underemployment. First, how does underemployment influence subsequent job expectations? How do underemployed graduates' perceptions of their current job (e.g. as a stepping-stone to a desired career pathway) influence their job expectations? Second, given the college-for-all push since the 1970s (Rosenbaum 2001), have there been changes over time in how underemployment affects job

expectations? Third, how does the relationship between underemployment and job expectations differ by gender and race? Finally, how do past job expectations and job perceptions affect current employment?

### **Job Expectations, Perceptions, and Career Trajectories**

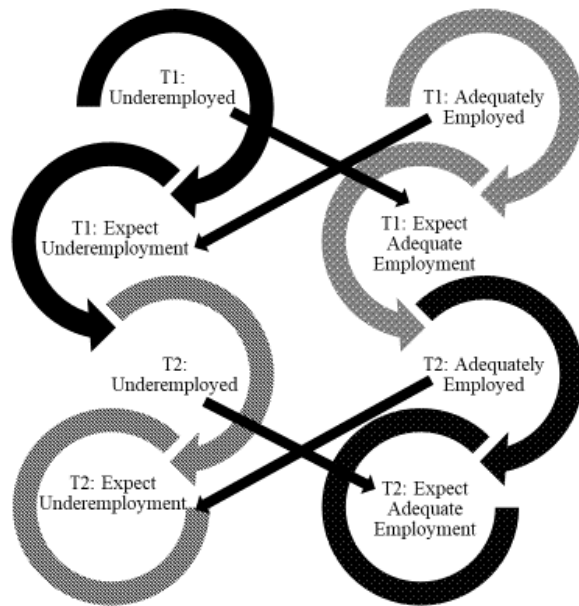
Graduates' interpretations of their underemployment may influence how they react and their subsequent coping strategies (Feldman 1996). This interpretation of underemployment may shift graduates' job expectations as they reconcile labor market realities with their original expectations, in the same way job values shift during young adulthood (Johnson 2002). Depending on how graduates perceive their underemployment – whether they think of it as a failure or a minor voluntary stepping stone – can shape their subsequent job expectations. Job expectations affect the strategies young adults employ to meet their labor market goals, and ultimately their career outcomes.

Theories of career development highlight the complex social cognitive processes that lead to job expectations, goals, and outcomes (Lent and Brown 2018; Lent, Brown, and Hackett 1994). I apply this career development conceptualization (Lent and Brown 2018; Lent et al. 1994) to examine how underemployment shifts job expectations. The feedback loop between underemployment, job expectations, and individuals' sense-making of their economic position is uncertain (Scurry and Blenkinsopp 2011). If expectations shift in the wake of underemployment, then subsequent labor market trajectories may change depending on the underlying interpretation.

Optimistic expectations predict future outcomes across a range of life domains (Hitlin and Johnson 2015), and job expectations are a crucial mechanism that can influence whether a young adult meets their career goals (Bandelj and Lanuza 2018). Over- and under- alignment of occupational expectations affects subsequent labor market outcomes; adolescents who expect to obtain more education than is necessary for their desired occupation have 30 percent higher wages and more prestigious occupations in adulthood (Kim, Klager, and Schneider 2019). Initial underemployment can influence identity and lead to “downshifting” life goals and expectations (Lane 2017; McKee-Ryan and Harvey 2011). Downshifting of job expectations can affect future labor market behavior, such as not applying for aspirational jobs or resigning oneself to settle for a lackluster position (Cooper 2014), which may contribute to the self-scarring effect of underemployment. This conceptual model is depicted in *Figure 2.0*.



Figure 2.0. Conceptual Model of Relationship Between Adequate or Underemployment and Expecting Adequate or Underemployment in the Future



- T1 = first observed survey wave after completing Bachelor's degree, T2 = second observed survey wave after completing Bachelor's degree... T5.
- Job expectations reflect what respondents think they will be doing in 10 years

It's also possible that the self-scarring effects of underemployment are buffered by graduates' interpretation and response to underemployment. Since the overwhelming narrative is that college graduates get good jobs, many graduates may expect to work a college job in the future despite initial underemployment; these graduates maintain optimistic expectations. Since job expectations can influence job-related actions (Bandelj and Lanuza 2018), I expect maintaining optimistic expectations for a college-job will lead to better labor market trajectories.

Collectively, this conceptualization leads to three hypotheses:

1. *Hypothesis 1, Downshifting Expectations:* Compared to adequately employed graduates, underemployed graduates will have greater likelihood of expecting to be underemployed in the future.

2. *Hypothesis 2, Interpretation of Job:* Graduates who perceive their job to be a stepping stone in pursuit of their long-term goals will have greater likelihood of expecting to be adequately employed in the future.
3. *Hypothesis 3, Job Outcomes:* Graduates who expected underemployment in the previous survey wave will be more likely to be currently underemployed.

### **Changes Over Time**

The college-to-career landscape has shifted considerably over the available survey years (1976 – 2015). Underemployment may affect a graduate's job expectations and subsequent labor market trajectory differently depending on the time period in which they graduate college. Graduates who enter the labor market during an economic recession start off with low pay and their wages remain low ten years later (Oreopoulos et al. 2012). It's possible that graduating during an economic downturn will have adverse career trajectory effects compared to graduating in a stronger economy (Nunley et al. 2015; Oreopoulos et al. 2012). On the other hand, underemployment may be more common among a graduate's peer group during an economic recession. Relative deprivation theory suggests people compare their employment situation with an imagined standard (Luksyte and Spitzmueller 2011; Merton and Kitt 1950). If underemployment is a common feature among a graduate's social network, they may attribute it to external versus internal factors, which may lessen the consequences of underemployment. Additionally, the consequences of underemployment will likely expand over time as the proportion of graduates increases in the college-for-all era and the signal of a college degree is diminished (Horowitz 2018). As the proportion of people with college degrees increases,

graduates may have a harder time recovering from underemployment. I anticipate the relationship between underemployment and job expectations will diminish over time.

4. *Hypothesis 4, Changes Over Time:* Compared to graduates beginning college in the 1970s and 1980s, underemployment will be less predictive of lowering job expectations for graduates starting college in the 1990s and 2000s.

## **Gender and Race**

Gendered work pathways begin early in life: teenagers work in gender-segregated positions (e.g., babysitting vs lawn-mowing), which creates a wage gap beginning at age 14 (Besen-Cassino 2018). These gendered work pathways continue through selection of a college major (Charles and Bradley 2009; Quadlin 2019), career aspirations (Correll 2004) and into the labor market (Charles and Grusky 2004; Petersen and Morgan 1995). Compared to men, women college graduates are more likely to be initially underemployed (Clark et al. 2017) and face a challenging school-to-work transition (Wyn et al. 2017). Previous research suggests that responses to *unemployment* differ by gender (Damaske 2020; Rao 2020). Middle class women are most likely to take a deliberate approach to their job search, while middle class men are more likely to take their time (Damaske 2020). Conversely, Rao (2020) finds that men's unemployment is an urgent problem among college-educated couples, while women's unemployment is less of an issue. There are gender differences in the college-to-work transition and subsequent occupational trajectories (Roksa and Levey 2010), but it's unclear how the interpretation and response to *underemployment* may differ by gender.

There is less empirical research about how responses to underemployment may be shaped by race. The racialized history of the labor market has forced people of color to adapt to institutionalized discrimination and unequal opportunities (Bertrand and Mullainathan 2004; England, Garcia-Beaulieu, and Ross 2004; Pager, Western, and Bonikowski 2009), so it is plausible that their response to underemployment may differ from White people. The returns on education are racialized, meaning the payoff of a college degree may be diminished for people of color (Browne and Misra 2003; Gaddis 2015; Tomaskovic-Devey, Thomas, and Johnson 2005). Because Black graduates face heightened structural inequalities in the labor market, I expect them to downshift their job expectations at a heightened level compared to White graduates. This chapter contributes to an empirical gap about how responses to underemployment may differ by race.

5. *Hypothesis 5, Gender:* Compared to men, women who experience underemployment will be more likely to expect underemployment in the future.
6. *Hypothesis 6, Race:* Compared to White graduates, Black graduates will be more likely to expect underemployment in the future.

## **Data and Methods**

### *Monitoring the Future Data (1976 – 2015)*

Monitoring the Future (MTF) is a national cross-sectional survey of about 16,000 high school seniors fielded annually since 1976. The survey is administered at 133 public and private high schools. These annual cross-sectional data of high school

seniors are publicly available. In this chapter, I use a lesser-known aspect of the MTF study: restricted-access longitudinal data. Each year, a sub-sample of 2,450 respondents from the 12<sup>th</sup> grade base year (BY) cohort are selected for follow-up (FU). The FU sample is randomly split in half to be followed every other year; one-half begins its first FU at modal age 19, and the other half begins its first FU in the second year at modal age 20. The follow-ups continue every two years until the modal ages of 29 and 30. There are a maximum of seven observations for each respondent: a BY observation and six FU waves.

The MTF survey questionnaire is divided across six forms, and respondents randomly receive one of the forms. Respondents receive the same form in the follow-ups as they do in the BY, with minor changes to the questions (e.g., questions about high school classroom climate are not included in the follow-ups). My variables of interest are on Form 4, so I limit the analytic sample to Form 4 respondents (N = 16,627 people). The current years available for analysis are 1976 – 2015, which means the last complete cohort – those who were followed until age 30 – available for analysis is base year 2003. To maximize data, I include respondents who completed at least one FU, even if they have not timed into all FU waves of the survey yet (e.g., respondents in base year 2012 who completed the first follow-up in 2014). Because I'm interested in college graduates, I limit the analytic sample to the 3,364 respondents who have earned a bachelor's degree or higher, are civilians (not currently or previously serving in the military), and those who expected adequate employment in the base year. Limiting observations to the survey waves after a

respondent has graduated from college results in 10,104 person-year observations.

The analytic sample construction is detailed in *Appendix 2A*.

One of the significant challenges with panel studies is accounting for missing data when respondents do not complete all FU waves. MTF panel response rates are a bit lower than other longitudinal studies, ranging from about 43 – 65 percent, with overall response rates slowly declining over time (Schulenberg et al. 2018:22).<sup>5</sup> Some researchers use multiple imputation strategies in response to missing panel data (Allison 2002; Cameron and Trivedi 2005). Because the variables I’m interested in are dynamic and likely change between follow-ups (i.e., current job), I do not impute any data. MTF does not provide survey attrition weights (Schulenberg et al. 2018:19). All analyses apply an MTF sampling weight (V106) to account for oversampling of drug users in the panel study.

### *Key Variables*

My primary variables of interest capture respondents’ current occupation and future job expectations. To capture *job expectations*, I use a BY survey question that asks, “What kind of work do you think you will be doing when you are 30 years old? Mark the one that comes closest to what you expect to be doing.” There are 16 occupational response categories such as laborer, service worker, and professional (see *Table 2.1*). The FU survey changes the question wording slightly to, “What kind of work do you think you will be doing 10 years from now?” I measure *current job*

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<sup>5</sup> In similar timeframes, Baccalaureate and Beyond Longitudinal Study student response rates ranged from 78 – 92 percent (National Center for Education Statistics 2018), National Longitudinal Survey of Youth (NLSY) 1979 ranged from 73 – 84 percent (U.S. Bureau of Labor Statistics 2020a), and the NLSY 1997 response rate is 75 percent (U.S. Bureau of Labor Statistics 2020b).

using the question, “Which best describes your primary job that week [the first week of March]?” or if the respondent is currently unemployed, “Which best describes the last job you held?” As shown in *Table 2.1*, these questions have the same 16 occupations as possible response options. For ease of interpretation, I cluster the responses into two categories: adequate employment (coded as 0) and underemployment (coded as 1). All analyses use this binary employment and job expectation variable.

Table 2.1. Monitoring the Future Employment Status and Job Expectations Question Text, Response Options, and Binary Variable Coding

Question Text	Response Options	Employment Type (Binary)
BY: What kind of work do you think you will be doing when you are 30 years old? Mark the one that comes closest to what you expect to be doing.	01 Laborer (car washer, sanitary worker, farm laborer)	<u>Underemployment</u>
	02 Service worker (cook, waiter, barber, janitor, gas station attendant, practical nurse, beautician)	<u>Underemployment</u>
	03 Operative or semi-skilled worker (garage worker, taxicab, bus or truck driver, assembly line worker, welder)	<u>Underemployment</u>
	08 Craftsman or skilled worker (carpenter, electrician, brick layer, mechanic, machinist, tool & die maker, telephone installer)	<u>Underemployment</u>
FU: What kind of work do you think you will be doing 10 years from now? Mark the one that comes closest to what you expect to be doing.	04 Sales clerk in a retail store or by phone (phone sales, department store clerk, drug store clerk)	<u>Underemployment</u>
	05 Clerical or office worker (bank teller, bookkeeper, secretary, postal clerk or carrier, keyboard operator)	<u>Underemployment</u>
	06 Protective service (police officer, firefighter, detective)	<u>Underemployment</u>
	09 Farm owner, farm manager	<u>Underemployment</u>
FU: Which best describes your primary job that week [the first full week in March]?	10 Owner of a small business (restaurant owner, shop owner)	<u>Underemployment</u>
	11 Sales representative (insurance agent, real estate broker, bond salesman)	<u>Underemployment*</u>
	12 Manager or administrator (office manager, sales manager, school administrator, government official)	<u>Underemployment</u>
	13 Professional without doctoral degree (registered nurse, librarian, engineer, architect, social worker, accountant, actor, artist, musician, teacher, pilot, computer programmer or analyst)	<u>Adequate Employ.</u>
[If unemployed] Which best describes the last job you held?	14 Professional with doctoral degree or equivalent (lawyer, physician, dentist, scientist, college professor)	<u>Adequate Employ.</u>
	15 Full-time homemaker	N/A
	16 Don't know	N/A
	07 Military service	N/A

To ascertain whether a college graduate is underemployed, or expects to work in an underemployed job, I use the Department of Labor’s O\*NET 2019 database (National Center for O\*NET Development 2019) to determine whether these occupations require a college degree (see *Appendix Table 2B*). Workers in each job

are asked, “If someone were being hired to perform this job, indicate the level of education that would be required.” Respondents select from twelve detailed education levels, ranging from less than a high school diploma to post-doctoral training. If more than 50 percent of the respondents working in that job indicate that at least a bachelor’s degree is necessary, I code that as adequate employment, following other studies of underemployment among college graduates (Abel and Deitz 2016:6–7; Federal Reserve Bank of New York 2020). Because the 16 categories are occupations and not jobs, I use the example jobs listed in parentheses and average the total to determine whether the occupation should be coded as adequate employment or underemployment (see *Appendix Table 2B*).

An additional layer of complexity when coding educational requirements of jobs over time is addressing credential inflation – a job that necessitates a college degree in 2015 might not have required one in 1985. I use the March supplement of the Current Population Survey (CPS) to see how many people in these occupations had a bachelor’s degree since 1976, when the MTF survey began (see *Appendix Table 2C*). I examined the jobs listed on the MTF survey that are available in the CPS (Flood et al. 2020). This supplementary analysis confirmed that most occupations are correctly coded as either adequate employment or underemployment consistently across all survey years.<sup>6</sup> There are two exceptions. First, I code Sales Representative as underemployed from 1975 – 2008 and adequately employed from 2009 – 2015. Second, the occupational category Manager or Administrator contains four jobs that

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<sup>6</sup> While Registered Nurse transitioned from fewer than 50 percent to more than 50 percent of occupants having a bachelor’s degree during the survey years, the other three jobs listed in that occupation do not change, so the occupation – Professional without a Doctoral Degree – is coded as adequate employment across all survey years.



are bifurcated on the proportion of people in those roles who have a bachelor's degree. Two of the jobs, Office Manager and Sales Manager, consistently have fewer than 50 percent bachelor's degree holders from 1976 – 2015. The third position, School Administrator, consistently has more than 50 percent bachelor's degrees, while the fourth position, Government Official, fluctuates over time. To account for this murkiness and as a robustness check, I compared all analyses to see how results differed when Manager or Administrator is coded as adequate versus underemployment and results are substantively similar. When breaking out expectations of the managerial occupation as a separate category from the binary adequate/underemployment variable, respondents' expectations of working in a managerial occupation in the future trend very similarly to expectations of underemployment (see *Appendix 2D*). Results presented in this chapter code Manager or Administrator as underemployment, which aligns with fewer than 50 percent of respondents having a bachelor's degree over the survey years as measured by both O\*NET and CPS data (Flood et al. 2020; National Center for O\*NET Development 2019).

Young adults may strategically accept a suboptimal job in hopes that it “gets their foot in the door” to access their desired career pathway. To account for this, I use a FU question that asks, “To what extent is (was) [current or most recent job] a good stepping-stone toward the kind of work you want in the long run?” Answer choices include not at all; a little; some extent; considerable extent; and a great extent. Similarly, respondents' perceptions of their current job may be affected by whether they expect to continue that type of work long-term. Respondents were asked, “To

what extent is (was) [current or most recent job] the type of work you expect to be doing for most of your life?" The same answer choices as the stepping-stone question are offered: not at all; a little; some extent; considerable extent; and a great extent.

Respondents' marital status, parental status, enrollment in graduate education, and current income may influence their career desires as they transition to adulthood.

I code marital status as a binary variable: engaged/married or single. Because respondents are 18 – 30 years old, very few people in the sample are widowed or divorced. Parental status is a categorical variable: no children, one child, or two or more children. I include a question that asks whether respondents are current students, indicating they are pursuing graduate education or another educational credential.

This categorical variable has three categories: no, part-time, or full-time. Respondents report their current income by selecting where their income falls within 17 pre-existing categories. I use the current response answers,<sup>7</sup> which range from \$0 to more than \$100,000, to create a five-category variable: less than \$25,000; \$25,00 – < \$50,000; \$50,00 – < \$70,000; \$70,000 – <\$100,000; and \$100,000+. Finally, I use a continuous measure of base year of survey administration (1976 – 2015) to account for period differences in all models. The frequencies of these variables are shown in

*Table 2.2.*

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<sup>7</sup> MTF changed the income response options in 1996 and 2009. The income range was \$0 - \$35,000+ from 1976-1995 and \$0 - \$50,000+ from 1996-2008. There are consistently 17 choice options across survey years, so while the dollar amount labels change, a respondent's position on the income continuum is comparable across years.

Table 2.2. Frequencies of Primary Variables by Cumulative Underemployment After College, Percentage of Person-Year Observations

	Cumulative Survey Waves Underemployed After College				Total
	100% Adeq. Employed	1-50% Underemp.	51-99% Underemp.	100% Underemp.	
<b>Job Expectations</b>					
Adequate Employment	93	86	60	48	78
Underemployment	7	14	40	52	22
Total	100	100	100	100	100
<b>Job is Good Stepping Stone</b>					
Not at All	8	19	22	27	17
A Little	11	14	16	18	14
Some Extent	19	17	15	18	18
Considerable Extent	31	26	23	19	26
Great Extent	31	24	25	18	26
Total	100	100	100	100	100
<b>Expect Job Most of Life</b>					
Not at All	22	39	50	53	37
A Little	15	14	16	16	15
Some Extent	21	16	15	14	18
Considerable Extent	24	18	12	10	18
Great Extent	18	12	8	7	13
Total	100	100	100	100	100
<b>Race</b>					
White	95	94	96	92	94
Black	5	6	4	8	6
Total	100	100	100	100	100
<b>Gender</b>					
Men	41	34	39	43	39
Women	59	66	61	57	61
Total	100	100	100	100	100
<b>Marital Status</b>					
Engaged/Married	47	44	44	40	44
Single	53	56	56	60	56
Total	100	100	100	100	100
<b>Parental Status</b>					
No Children	83	87	84	84	84
One Child	11	9	9	10	10
Two+ Children	6	5	7	6	6
Total	100	100	100	100	100
<b>Currently a Student</b>					
No	73	66	70	74	71
Part Time	11	10	12	10	11
Full Time	16	24	18	16	19
Total	100	100	100	100	100
<b>Current Income</b>					
<\$25k	28	38	39	43	35
\$25k - <\$50k	32	30	34	32	32
\$50k - <\$70k	13	12	9	9	11
\$70k - <\$100k	14	12	10	8	12
\$100k+	13	9	8	8	10
Total	100	100	100	100	100
<b>Base Year of Survey Administration</b>					
1970s	12	12	12	12	12
1980s	32	35	35	37	34
1990s	33	33	32	28	32
2000s	24	20	21	23	22
Total	100	100	100	100	100
<b>Sample Size (Person-Year Obs)</b>	<b>3,870</b>	<b>2,779</b>	<b>977</b>	<b>2,262</b>	<b>9,888</b>

Source: Monitoring the Future (1976 - 2015) analytic sample

Initial descriptive analyses included background characteristics (see *Appendix 2K*). Gender is coded as a binary variable (man/woman) and race is limited to Black respondents and White respondents. Responses from other racial-ethnic groups are not large enough across survey years to include in analyses. For parent's education, I created a categorical variable that captures a parent's level of education in single parent households or the parent with the highest level of education in two parent households. The categories are grade school or less, some high school, high school, some college, bachelor's degree, or more than a bachelor's degree. Similarly, I combined three variables to create a categorical variable for family background, which describes who the respondent lived with in the BY survey: both parents, mother only, father only, or neither. I accounted for region of residence (Northeast, Midwest, South, and West) using an MTF-provided variable based on the high school's zip code in the BY.

To capture differences in employment trajectories by field of study or level of academic aptitude, I use a GPA variable that asks, "Which of the following best describes your average grade this year (since last September)? There are 10 possible options ranging from no grades/don't know to A (93-100). I recode these into four-categories: D (69 or below); C (70-79); B (80-89); and A (90-100).<sup>8</sup> The question about college major/field of study asks, "What has been your major field of study this year?" with 11 possible choice options. I combine some of the original categories due to low cell sizes to Clerical/Vocational; Biology; Business; Education; Engineer; Humanities/Art; Physical Sciences; Social Sciences, and Other. Both GPA and

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<sup>8</sup> I reverse code this to ease in interpretation; as the coefficient increases so does the GPA.

college major are only asked in a given FU if respondents indicated they were taking courses at any school or college in March of that year, so there are fewer person-year observations for these variables. Additionally, background characteristics such as parent's education, family background, and high school region are time-invariant characteristics that are measured in the BY and then are static, making them inappropriate to include in analytic models measuring changes in job expectations as respondents age.

### *Analysis*

To determine the most appropriate modeling strategy, I compared fixed effects and random effects models (Hsiao 1986; Singer and Willett 2003). In a fixed effects model, the slope of each independent variable is assumed to be identical across all groups, so the regression reports the average within-group effect. There may be individual-level characteristics that influence likelihood of experiencing underemployment, such as institutional prestige, socioeconomic status, or personality traits. Fixed effect models can account for these unobservable individual differences. In a random effects model, the variation across groups is assumed to be random and uncorrelated with the independent variables. I compare several modeling strategies in *Table 2.3*, described in more detail below, and find the results are substantively similar regardless of modeling approach. Subsequent analyses presented in this chapter use logistic random effects models.<sup>9</sup>

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<sup>9</sup> To initially determine which type of model is most appropriate, I used the Hausman Test to indicate whether the unique errors are correlated with the independent variables, which is a key differentiation between a fixed or random effects model (Cameron and Trivedi 2009; Torres-Reyna 2007). The results were  $< .05$ , indicating the null hypothesis that individual effects are random can be rejected, and fixed

My models use the general equation  $y_{it} = \alpha_i + \beta_1 x_{it} + u_{it}$ , where  $y_{it}$  is the binary dependent variable job expectations (0 = adequate employment and 1 = underemployment) for person  $i$  ( $i = 1, 2, 3, \dots, n$ ) at time  $t$  ( $t = 1, 2, 3, \dots, 7$ );  $\alpha_i$  are random individual-specific effects;  $x_{it}$  are independent variables;  $\beta$  is the coefficient for those independent variables; and  $u_{it}$  is the error term (Cameron and Trivedi 2009; Torres-Reyna 2007). I use the “melogit” command in Stata and estimate robust standard errors in all analyses.

## Results

I begin by examining graduates’ job expectations. To assess *Hypotheses 1 and 2*, I consider how graduates’ cumulative experiences of underemployment affect their job expectations and how graduates’ perceptions of their job influence job expectations. I then assess how the relationship between underemployment and job expectations has changed over time (*Hypothesis 4*). Next, I consider how interpretations and responses to underemployment differ by gender (*Hypothesis 5*) and race (*Hypothesis 6*). Finally, I assess how job expectations affect job outcomes (*Hypothesis 3*) to understand the long-term implications of downshifting job expectations.

### *Job Expectations*

I start by examining my first research question, how does underemployment influence subsequent job expectations? First, *Figure 2.1* illustrates job expectations by age for all college graduates. This is a descriptive graph depicting what type of

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effects models are appropriate (Cameron and Trivedi 2009). However, fixed effects models eliminate respondents who do not have variation in their employment and job expectations, so random effects models make most sense substantively.

work (adequate or underemployment) graduates expected each survey wave. *Figure 2.1* shows that most college graduates expect adequate employment, however expectations level as graduates age. In the BY, 77 percent of high school seniors expect adequate employment and 23 percent expect underemployment. However, as college graduates age, more people begin to expect underemployment and fewer people expect adequate employment. By the time graduates are 29/30 years old, 70 percent expect adequate employment and 30 percent expect underemployment.

Next, *Figure 2.2* depicts job expectations by age, grouped by employment outcomes in observed waves after college. I created these groups using a dummy variable that calculates the cumulative amount of time a respondent was underemployed in observed waves after college (i.e., a graduate who completed three FU waves after college and was underemployed in two of the three waves would be 66 percent underemployed). All of these respondents expected adequate employment in the BY. The purpose of this figure is to show how job expectations differ based on cumulative experiences of underemployment. Graduates who are consistently adequately employed after college have very little change in their job expectations of adequate employment: 93 percent of respondents in this group consistently expect adequate employment. However, for those who experience underemployment, higher proportions of observed waves underemployed is correlated with increases in expecting underemployment. Among graduates underemployed in 1-50 percent of observed waves, expecting underemployment increases from 15 percent at age 23/24 to 17 percent at age 29/30. Of those who are underemployed in 51-99 percent of observed waves, expecting underemployment increases from 34 percent at age 23/24

to 49 percent at age 29/30. Finally, for those who are underemployed in all observed waves after college, their expectation of underemployment increases from 43 percent at age 23/24 to 65 percent at age 29/30.



Figure 2.1. Job Expectations by Age

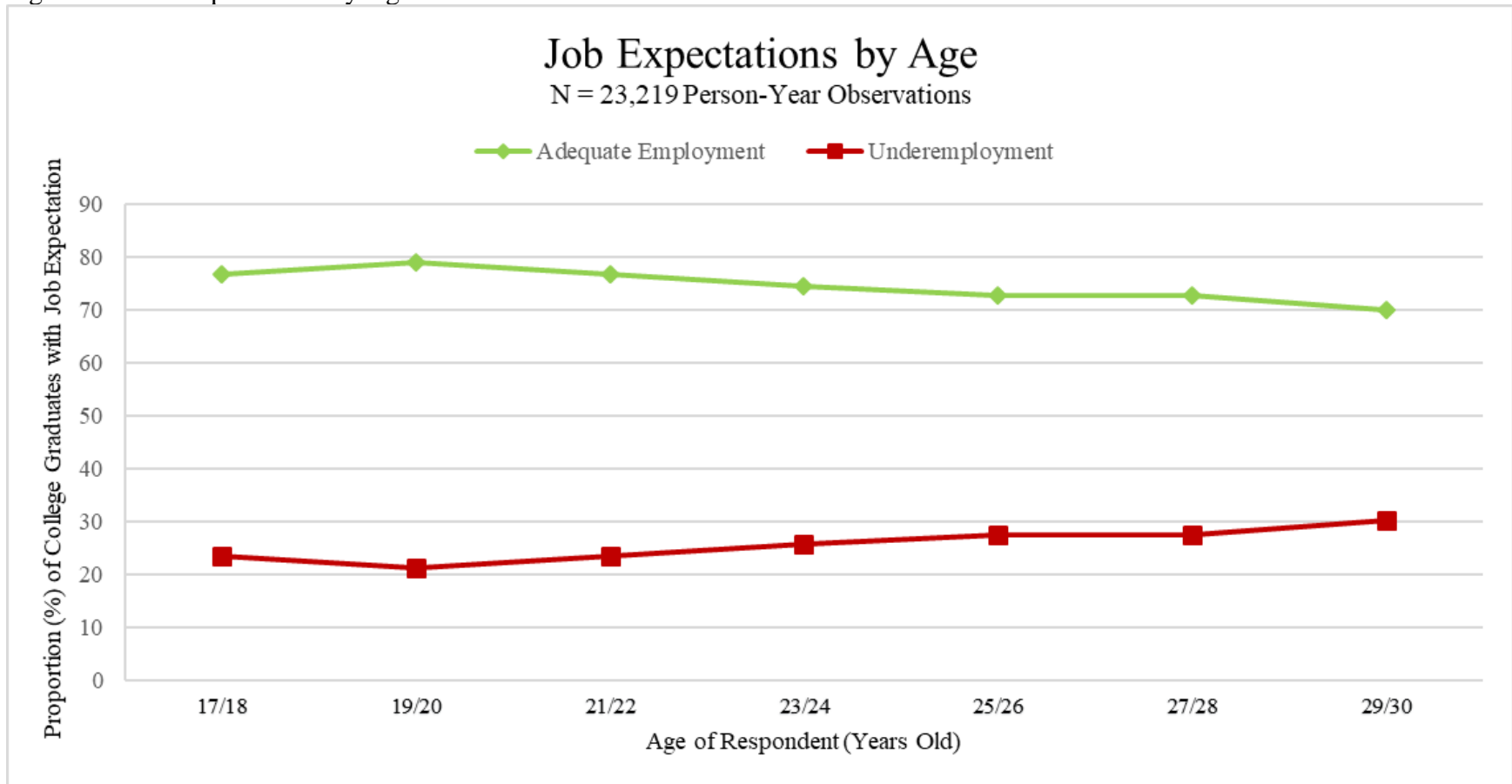
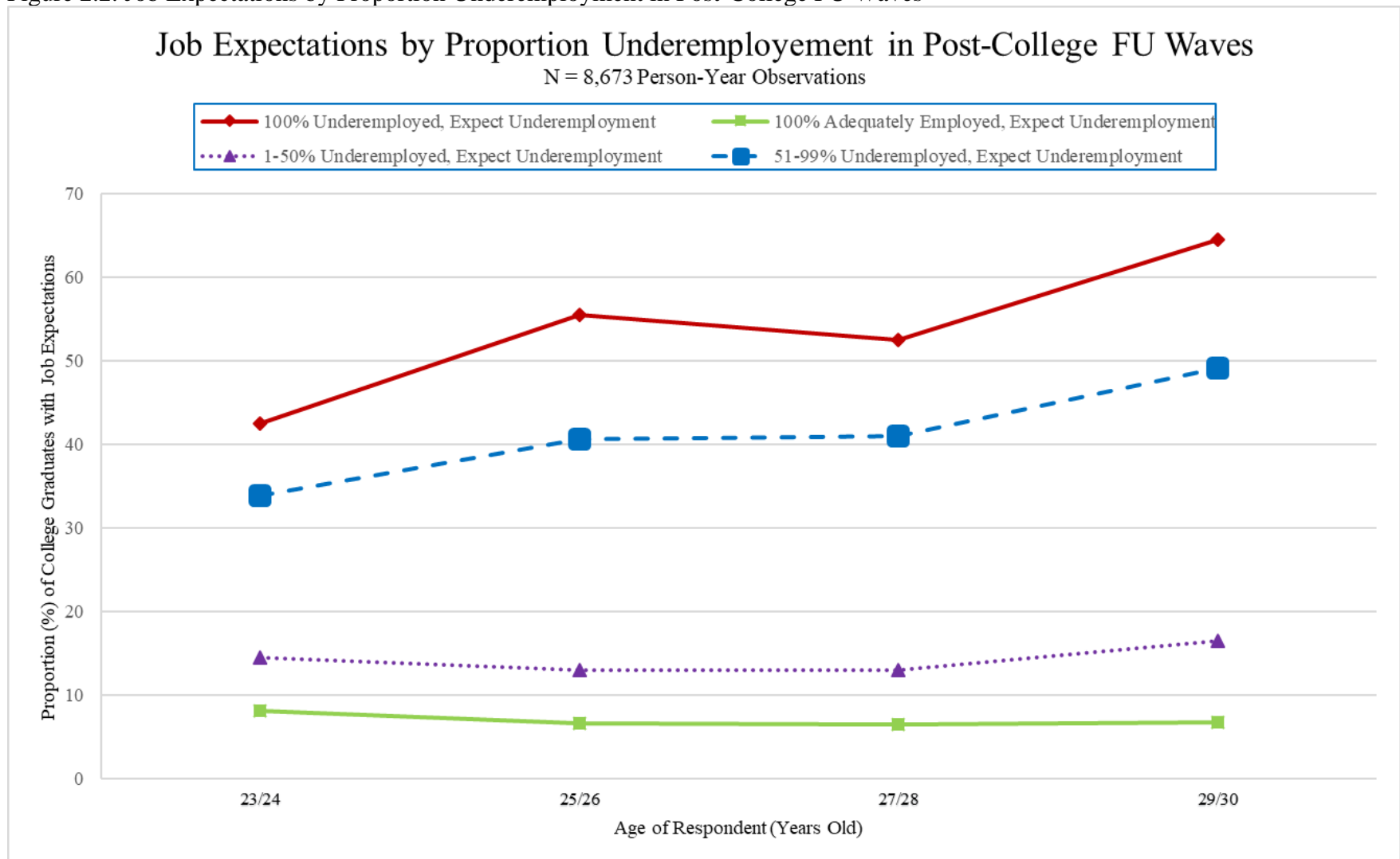


Figure 2.2. Job Expectations by Proportion Underemployment in Post-College FU Waves



Finally, *Table 2.3* establishes a baseline model examining how post-college underemployment affects job expectations among young adults who expected adequate employment in the BY. The independent variable is a binary measure of whether a respondent is currently underemployed. This table examines how underemployment (measured as a binary variable) affects job expectations (also measured as a binary variable). *Table 2.3* shows that results are consistent regardless of modeling strategy; a linear probability model, logistic fixed effects model, and logistic random effects model all produce similar results. The magnitude of the coefficient, direction of the coefficient (positive/negative) and which variables are statistically significant are consistent across different types of models. Model 1 shows the association between underemployment and job expectations. Across the modeling approaches, underemployment is associated with expecting to be underemployed in the future. Model 2 adds a continuous variable for BY of survey administration, which does not change the relationship between underemployment and job expectations. Model 3 incorporates control variables including marital status, parental status, whether the respondent is currently a student, and income. When these variables are incorporated, the underemployment coefficients slightly increase in magnitude. Compared to college graduates who are engaged or married, those who are single are less likely to expect underemployment in the future. Graduates who are currently in school are also less likely to expect underemployment compared to those who are not current students. *Table 2.3* shows underemployed graduates level their job expectations by anticipating they will be underemployed in the future.

Table 2.3. Linear Probability, Logistic Fixed Effects, and Logistic Random Effects Models of Underemployment (Binary) on Job Expectations (Binary), Coefficients

	Model 1				Model 2				Model 3			
	LPM (W)	Log, FE	Log, RE	Log, RE (W)	LPM (W)	Log, FE	Log, RE	Log, RE (W)	LPM (W)	Log, FE	Log, RE	Log, RE (W)
Underemployed (Ref: Adeq Emp)	0.36 ** (0.01)	1.44 ** (0.13)	2.68 ** (0.10)	2.56 ** (0.10)	0.36 ** (0.01)	1.44 ** (0.13)	2.68 ** (0.10)	2.56 ** (0.10)	0.41 ** (0.01)	1.73 ** (0.15)	3.24 ** (0.11)	3.11 ** (0.11)
Base Year of Survey Admin.					0.00 ** (0.00)		-0.02 ** (0.01)	-0.02 ** (0.01)	0.00 (0.00)		0.00 (0.01)	0.00 (0.01)
Single (Ref: Engaged/Married)									-0.03 ** (0.01)	-0.29 + (0.15)	-0.26 ** (0.10)	-0.25 * (0.10)
Parental Status (Ref: No Kids)												
One Child									0.00 (0.01)	0.39 + (0.21)	0.06 (0.15)	0.05 (0.14)
Two+ Children									0.02 (0.02)	0.17 (0.28)	0.11 (0.20)	0.17 (0.19)
Current Student (Ref: No)												
Part Time									-0.05 ** (0.01)	-0.34 + (0.18)	-0.39 ** (0.14)	-0.38 ** (0.14)
Full Time									-0.16 ** (0.01)	-0.62 ** (0.18)	-1.36 ** (0.14)	-1.30 ** (0.15)
Current Income (Ref: < \$25k)												
\$25,000 - < \$50,000									0.11 ** (0.01)	0.42 ** (0.14)	0.80 ** (0.11)	0.86 ** (0.12)
\$50,000 - < \$70,000									0.12 ** (0.01)	0.58 ** (0.19)	1.03 ** (0.15)	1.03 ** (0.15)
\$70,000 - < \$100,000									0.14 ** (0.01)	0.66 ** (0.19)	1.12 ** (0.15)	1.18 ** (0.16)
\$100,000+									0.14 ** (0.02)	0.46 * (0.22)	1.10 ** (0.16)	1.12 ** (0.16)
Constant	0.08 ** (0.00)		-3.38 ** (0.10)	-3.18 ** (0.09)	3.03 ** (0.92)		30.32 ** (11.64)	27.49 * (10.86)	-0.07 (0.93)		-3.80 (11.36)	-4.33 (10.89)
var(_cons[id])			3.84 ** (0.36)	2.75 ** (0.27)			3.84 ** (0.36)	2.75 ** (0.27)			2.92 ** (0.31)	2.09 ** (0.24)
chi <sup>2</sup>		147.56	732.64	655.99		147.56	735.67	657.66		203.11	898.40	766.12
N Person-Year Observations	8,508	2,302	8,508	8,508	8,508	2,302	8,508	8,508	8,208	2,193	8,208	8,208
N Individuals		686	3,153	3,153		686	3,153	3,153		662	3,109	3,109

Notes: LPM: linear probability model (OLS); Logistic Regression FE: Fixed Effects and RE: Random Effects. Survey weights (W) are applied in the LPM model and second Logistic RE model. Year is omitted from the FE model in Model 2 and Model 3 due to collinearity.

Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Source: Monitoring the Future (1976 - 2015) analytic sample, which is limited to respondents who expected adequate employment in the base year survey.

Next, *Table 2.4* assesses how underemployed graduates' perceptions of their current job influences their job expectations. To examine whether perception mechanisms differ based on types of underemployment experience, I run the model separately for the four groups depicted in *Figure 2.2*. These clusters reflect a dummy variable that calculates a cumulative measure of how often a respondent is underemployed in observed FU waves after college. The four groups are 100 percent adequate employment (no underemployment); 1-50 percent underemployment; 51-99 percent underemployment; and 100 percent underemployment. The random effects model examines how two primary predictor variables influence job expectations: current job is stepping stone and expect current job most of life. Both perception variables are categorical variables in which respondents select "to what extent" their job is a stepping stone or the type of work they imagine themselves doing for most of their life. Odds ratios are presented for ease of interpretation; see *Appendix 2G* for a corresponding table with coefficients.

Among those who are 1-50 percent underemployed or always underemployed, those who see their current job as a stepping stone are almost twice as likely to expect underemployment in the future compared to those who don't see their current job as a stepping stone. This is not statistically significant for those who are underemployed in 51-99 percent of observed waves after college. Graduates who are consistently underemployed and expect to work in their current job most of their life are two to three times as likely to expect underemployment than those who do not expect to work in that job for most of their life. Conversely, graduates who are adequately employed or 1-50 percent underemployed are about half as likely to expect

underemployment if they expect to work in their current job most of their life. Regardless of underemployment category, full-time students are half as likely to expect underemployment in the future compared to those not in school. Among graduates who experience underemployment in more than half of observed waves, higher income is associated with expecting underemployment in the future. This likely reflects those who are in highly paid but underemployed jobs.

These results collectively suggest that graduates who are adequately employed may expect to work their current job – an adequately employed job – in the future and thus would not expect to be underemployed. However, strategically viewing their job as a stepping stone does not buffer underemployed college graduates from leveling their job expectations—even those who see their job as a stepping stone anticipate underemployment in the future. Underemployed graduates who expect to work in their current job most of their life are more likely to anticipate they will be underemployed in the future, reflecting self-scarring (i.e., feeling stuck).

Table 2.4. Logistic Random Effects of Perception Mechanisms on Job Expectations (Binary), Modeled Separately by Cumulative Underemployment After College, Odds Ratios

	100% Adeq. Emp.	1-50% Underemp	51-99% Underemp.	100% Underemp.
<b>Current Job is Stepping Stone</b> (Ref: Not at All)				
A Little	1.38 (0.54)	1.90 * (0.49)	0.76 (0.30)	1.61 * (0.37)
Some Extent	1.02 (0.38)	1.64 + (0.44)	1.06 (0.41)	3.05 ** (0.77)
Considerable Extent	1.13 (0.41)	2.20 ** (0.57)	1.64 (0.58)	4.07 ** (1.06)
Great Extent	1.62 (0.58)	2.08 ** (0.57)	1.85 + (0.66)	2.95 ** (0.81)
<b>Expect Current Job Most of Life</b> (Ref: Not at All)				
A Little	0.59 + (0.16)	0.52 ** (0.12)	1.24 (0.38)	2.03 ** (0.43)
Some Extent	0.55 * (0.14)	0.56 ** (0.12)	1.92 * (0.61)	3.03 ** (0.78)
Considerable Extent	0.29 ** (0.08)	0.28 ** (0.07)	1.51 (0.53)	3.01 ** (0.87)
Great Extent	0.19 ** (0.06)	0.18 ** (0.06)	0.70 (0.32)	1.86 + (0.62)
Base Year of Survey Admin.	1.03 * (0.01)	1.00 (0.01)	1.00 (0.01)	0.97 ** (0.01)
Single (Ref: Engaged/Married)	0.98 (0.20)	0.78 (0.14)	0.66 (0.17)	0.56 ** (0.10)
<b>Parental Status (Ref: No Kids)</b>				
One Child	0.86 (0.28)	0.86 (0.23)	1.13 (0.46)	1.45 (0.37)
Two+ Children	0.55 (0.27)	1.16 (0.50)	0.72 (0.33)	1.58 (0.58)
<b>Current Student (Ref: No)</b>				
Part Time	1.23 (0.30)	1.19 (0.28)	0.52 + (0.18)	0.44 ** (0.11)
Full Time	0.45 * (0.15)	0.57 * (0.13)	0.54 * (0.16)	0.45 ** (0.10)
<b>Current Income (Ref: &lt; \$25k)</b>				
\$25,00 - < \$50,000	1.20 (0.30)	1.39 (0.28)	1.92 ** (0.47)	1.47 * (0.25)
\$50,000 - < \$70,000	0.91 (0.29)	0.98 (0.27)	5.21 ** (2.02)	3.26 ** (0.94)
\$70,000 - < \$100,000	1.38 (0.43)	2.08 ** (0.56)	3.07 ** (1.17)	1.82 * (0.53)
\$100,000+	1.57 (0.51)	2.11 * (0.62)	6.53 ** (2.79)	1.08 (0.33)
Constant	0.00 * 0.00	0.16 (3.25)	3.81 (112.04)	7.3E+28 ** (1.37E+30)
var(_cons[id])	19.11 ** (12.49)	4.39 ** (1.65)	4.52 ** (1.99)	7.71 ** (3.27)
Wald Chi <sup>2</sup>	60.99	73.47	88.19	186.24
N Pearson-Year Observations	3,389	2,431	815	1,849
N Individuals	1,268	753	248	829

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Source: Monitoring the Future (1976 - 2015)

### *Changes Over Time*

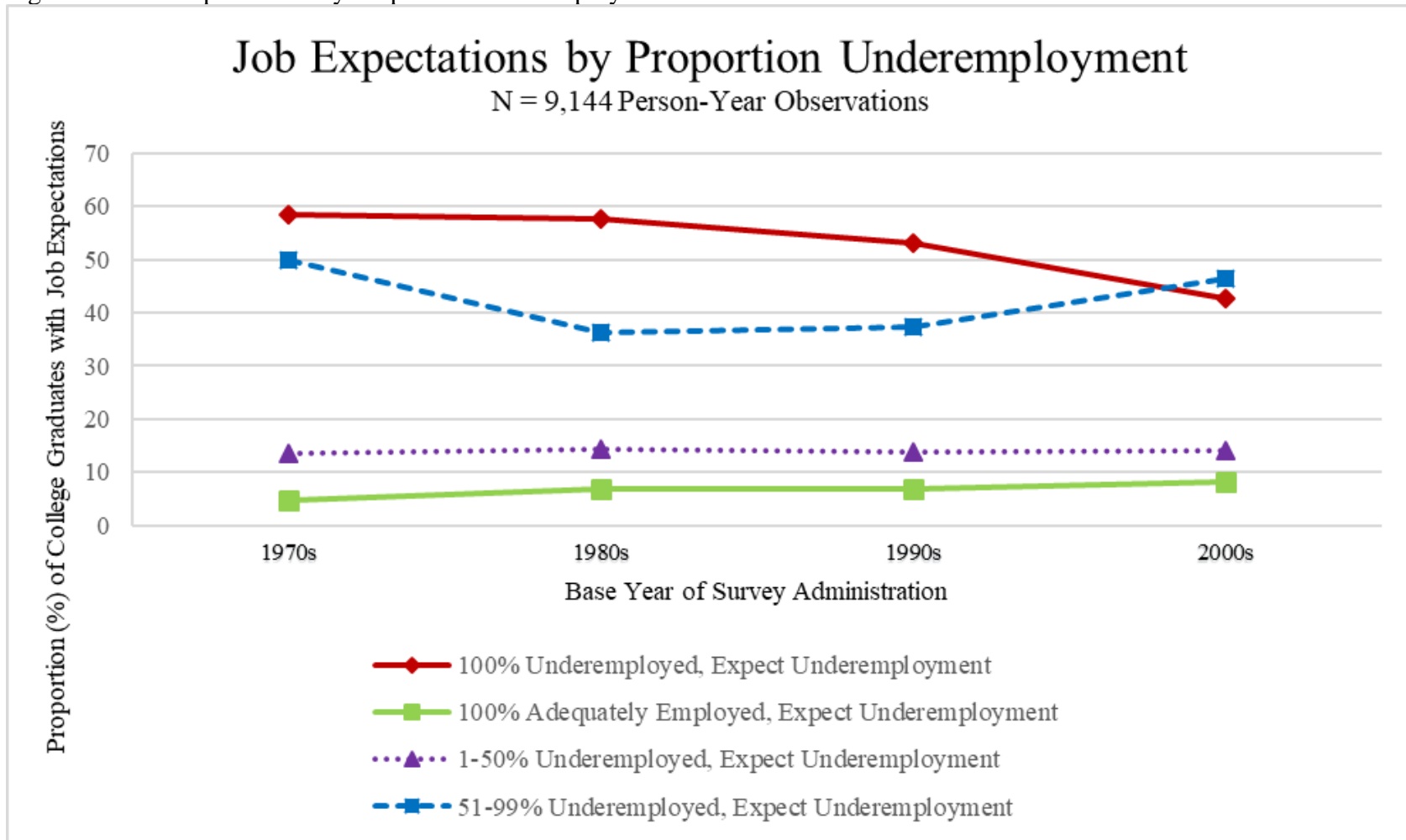
My second research question asked, given the college-for-all push since the 1970s (Rosenbaum 2001), have there been changes over time in how underemployment affects job expectations? *Figure 2.3*<sup>10</sup> shows job expectations from 1976 – 2009 among the analytic sample—college graduates who expected adequate employment in the BY. Like the previous analysis, I use a cumulative measure of underemployment in observed survey waves after college. Graduates who are adequately employed (never underemployed) and 1-50 percent underemployed in observed waves after college have few changes in their expectations of underemployment from the 1970s to 2000s. Among graduates who are underemployed in every wave after college, 59 percent expected underemployment in the future in the 1970s compared to 43 percent in the 2000s. Among graduates who are underemployed in 51-99 percent of waves, 50 percent expected underemployment in the 1970s, 36 percent expected underemployment in the 1980s, 37 percent expected underemployment in the 1990s, and 46 percent expected underemployment in the 2000s. These descriptive results suggest that compared to graduates in the 1970s and 1980s, graduates who are consistently underemployed after college in the 1990s and 2000s are less likely to expect underemployment in the future.

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<sup>10</sup> A small number of respondents graduated college before age 23; they are not included in *Figure 2.3* but are included in analytic models.



Figure 2.3. Job Expectations by Proportion Underemployment Over Time



*Table 2.5* examines whether there have been changes over time in how graduates respond to underemployment. The independent variable is a binary measure of underemployment indicating whether the respondent is currently underemployed in a given survey wave after graduating from college. The dependent variable remains the same as previous analyses—a binary measure of job expectations, assessing whether respondents expect to be adequately or underemployed in the future. *Table 2.5* uses the same baseline random effects model as *Table 2.4*, modeled separately by decade (1970s, 1980s, 1990s, and 2000s). I present odds ratios for ease of interpretation; see *Appendix 2H* for a comparable table with coefficients.

The results show that the relationship between underemployment and job expectations is robust across time, although the magnitude diminishes between the 1970s and 2000s. In the 1970s, underemployed graduates were 47 times as likely to expect underemployment in the future compared to their adequately employed peers. In the 2000s, graduates who experienced underemployment were 24 times as likely to expect underemployment. College-for-all posits that a college degree is necessary for a good job (Rosenbaum 2001), and more recent underemployed graduates may have internalized this message, buffering the extent of their downshifting job expectations.

Table 2.5. Logistic Random Effects of Underemployment (Binary) on Job Expectations (Binary), Modeled Separately by Base Year of Survey Administration (Grouped by Decade), Odds Ratios

	1970s	1980s	1990s	2000s	All Years
Underemployment	47.20 ** (16.24)	27.35 ** (5.89)	29.66 ** (6.46)	24.21 ** (7.02)	28.03 ** (3.51)
Current Job is Stepping Stone (Ref: Not at All)					
A Little	1.59 (0.72)	1.85 * (0.52)	1.95 * (0.56)	1.63 (0.63)	1.83 ** (0.30)
Some Extent	2.10 (0.96)	2.87 ** (0.82)	2.29 ** (0.69)	2.71 ** (0.95)	2.56 ** (0.42)
Considerable Extent	3.42 ** (1.62)	3.81 ** (1.02)	3.05 ** (0.89)	2.91 ** (1.02)	3.29 ** (0.52)
Great Extent	4.30 ** (2.20)	3.90 ** (1.07)	4.44 ** (1.31)	3.35 ** (1.22)	3.86 ** (0.63)
Expect Current Job Most of Life (Ref: Not at All)					
A Little	1.32 (0.55)	1.77 * (0.41)	1.15 (0.30)	1.32 (0.38)	1.39 * (0.19)
Some Extent	1.24 (0.52)	1.68 * (0.38)	1.40 (0.38)	1.70 + (0.52)	1.54 ** (0.21)
Considerable Extent	0.66 (0.33)	0.93 (0.21)	0.74 (0.20)	1.37 (0.45)	0.90 (0.13)
Great Extent	0.37 + (0.20)	0.66 (0.19)	0.47 * (0.15)	0.69 (0.25)	0.59 ** (0.10)
Single (Ref: Engaged/Married)	1.12 (0.33)	0.92 (0.15)	0.73 + (0.14)	0.50 ** (0.11)	0.76 ** (0.08)
Parental Status (Ref: No Kids)					
One Child	0.96 (0.37)	1.33 (0.34)	1.69 * (0.38)	0.57 + (0.17)	1.18 (0.16)
Two+ Children	0.90 (0.41)	1.55 (0.57)	1.10 (0.32)	1.44 (0.72)	1.22 (0.24)
Current Student (Ref: No)					
Part Time	1.14 (0.36)	0.88 (0.21)	0.41 ** (0.11)	0.74 (0.26)	0.70 * (0.10)
Full Time	0.51 (0.27)	0.31 ** (0.08)	0.34 ** (0.09)	0.32 ** (0.10)	0.33 ** (0.05)
Current Income (Ref: < \$25k)					
\$25,00 - < \$50,000	2.56 * (1.05)	1.52 * (0.33)	2.28 ** (0.47)	2.26 ** (0.53)	2.02 ** (0.24)
\$50,000 - < \$70,000	4.58 ** (2.26)	1.98 ** (0.50)	2.33 ** (0.65)	1.67 + (0.51)	2.28 ** (0.34)
\$70,000 - < \$100,000	4.07 ** (1.73)	1.73 * (0.47)	3.95 ** (1.11)	3.27 ** (1.42)	2.65 ** (0.42)
\$100,000+	4.61 ** (2.04)	2.11 ** (0.56)	2.58 ** (0.72)	3.15 * (1.74)	2.53 ** (0.41)
Constant	0.00 ** 0.00	0.01 ** 0.00	0.01 ** 0.00	0.01 ** (0.01)	0.01 ** 0.00
var(_cons[id])	2.40 (1.40)	6.77 ** (2.61)	6.61 ** (2.85)	10.55 ** (6.37)	6.51 ** (1.52)
Wald Chi <sup>2</sup>	183.43	303.83	284.91	168.33	834.93
N Pearson-Year Observations	919	2,718	2,518	1,782	7,979
N Individuals	329	970	918	823	3,081

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Source: Monitoring the Future (1976 - 2015)

## *Gender and Race*

I next consider how the relationship between underemployment and job expectations differs by gender and race. First, *Figure 2.4* shows the proportion of Black men and Black women in the sample with college degrees compared to White men and White women from 1976-2009. In 2005-2009, the proportion of the sample with a Bachelor's degree or higher was 28 percent of White Men, 29 percent of White women, 19 percent of Black men, and 20 percent of Black women. As shown in *Appendix 2F*, the low number of Black college graduates in the analytic sample is a reflection of the small number of Black young people in the sample to begin with, coupled with the lower proportion of Black young adults who obtain a Bachelor's degree or higher over the survey years.

*Table 2.6* uses the same random baseline effects model from *Table 2.4*, run separately by gender (men and women) and race (White and Black). The independent variable is a binary measure of underemployment capturing whether the respondent is currently underemployed, and the dependent variable is a binary measure of job expectations. Odds ratios are presented; see *Appendix 2I* for an analogous table with coefficients. As *Table 2.6* shows, the relationship between underemployment and job expectations does not differ by gender. Women and men who are underemployed both expect underemployment in the future. There are a few gender differences in perceptions of underemployment. Women who expect to work their current job the rest of their life "a little" or "some extent" are almost twice as likely to expect underemployment compared to women who do not expect to continue working their current job. This is not statistically significant for men. Secondly, women with one

child are almost twice as likely to expect underemployment than women with no kids. This is not statistically significant for men.

The relationship between underemployment and expecting to be underemployed in the future is a lower magnitude for Black graduates than White graduates. Underemployed White graduates are 35 times more likely to expect underemployment than those who are adequately employed, compared with underemployed Black graduates, who are 10 times more likely to expect underemployment than those who are adequately employed. The perception mechanisms (current job as a stepping stone, expect job most of life) are not statistically significant among Black graduates, suggesting their interpretation of underemployment may be distinct from White graduates. Black graduates who have a child are twice as likely to expect underemployment than those with no children; this is not statistically significant for White graduates.

Figure 2.4. Proportion of Subsample with Bachelor's+

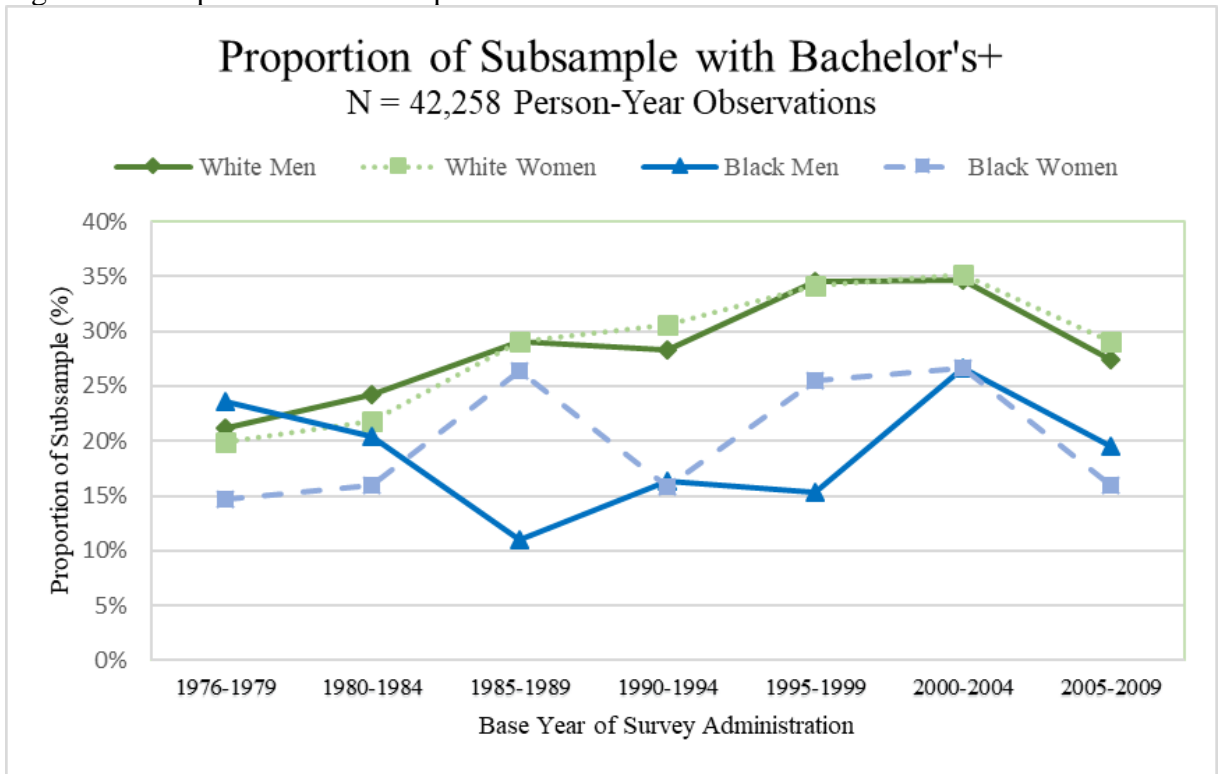


Table 2.6. Logistic Random Effects of Underemployment (Binary) on Job Expectations (Binary), Modeled Separately by Gender and Race, Odds Ratios

	Men	Women	White	Black
Underemployment	30.17 ** (5.76)	26.27 ** (4.40)	35.92 ** (5.16)	10.37 ** (4.61)
Current Job is Stepping Stone (Ref: Not at All)				
A Little	1.76 * (0.45)	1.91 ** (0.41)	2.23 ** (0.41)	0.92 (0.55)
Some Extent	2.64 ** (0.69)	2.52 ** (0.54)	2.91 ** (0.55)	1.74 (0.85)
Considerable Extent	3.60 ** (0.91)	3.08 ** (0.63)	3.84 ** (0.69)	1.84 (1.05)
Great Extent	3.46 ** (0.91)	4.20 ** (0.88)	4.47 ** (0.84)	1.99 (1.11)
Expect Current Job Most of Life (Ref: Not at All)				
A Little	1.29 (0.27)	1.49 * (0.27)	1.49 * (0.23)	1.71 (0.83)
Some Extent	1.33 (0.27)	1.70 ** (0.32)	1.71 ** (0.27)	0.83 (0.45)
Considerable Extent	0.91 (0.19)	0.91 (0.18)	1.01 (0.16)	0.68 (0.48)
Great Extent	0.72 (0.17)	0.45 ** (0.11)	0.62 * (0.12)	0.55 (0.38)
Base Year of Survey Admin.	1.01 (0.01)	0.99 (0.01)	1.00 (0.01)	0.98 (0.02)
Single (Ref: Engaged/Married)	0.72 * (0.11)	0.77 * (0.10)	0.81 + (0.09)	0.67 (0.32)
Parental Status (Ref: No Kids)				
One Child	0.81 (0.18)	1.49 * (0.26)	1.09 (0.17)	2.40 * (0.99)
Two+ Children	1.01 (0.32)	1.34 (0.33)	1.13 (0.25)	1.99 (1.58)
Current Student (Ref: No)				
Part Time	0.75 (0.17)	0.69 * (0.13)	0.77 (0.13)	0.23 ** (0.12)
Full Time	0.32 ** (0.07)	0.35 ** (0.07)	0.31 ** (0.05)	0.68 (0.32)
Current Income (Ref: < \$25k)				
\$25,00 - < \$50,000	2.69 ** (0.54)	1.74 ** (0.26)	2.04 ** (0.28)	1.44 (0.62)
\$50,000 - < \$70,000	2.33 ** (0.55)	2.25 ** (0.45)	2.25 ** (0.38)	3.22 * (1.81)
\$70,000 - < \$100,000	2.93 ** (0.73)	2.38 ** (0.50)	2.50 ** (0.46)	3.61 * (2.21)
\$100,000+	2.92 ** (0.71)	1.87 ** (0.44)	2.60 ** (0.49)	2.07 (1.33)
Constant	0.00 0.00	1,196,018 (1.69E+07)	0.73 (9.01)	1.6E+12 (6.36E+13)
var(_cons[id])	7.62 ** (2.85)	5.48 ** (1.63)	8.54 ** (2.37)	4.46 (4.38)
Wald Chi <sup>2</sup>	349.16	516.24	735.59	46.96
N Pearson-Year Observations	3,275	4,704	6,787	418
N Individuals	1,265	1,816	2,576	178

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Source: Monitoring the Future (1976 - 2015).

### *Job Outcomes*

While the previous results examined current job expectations as the dependent variable of interest, *Table 2.7* examines how past job expectations and past job perceptions affect current employment. The dependent variable in this analysis is a binary variable measuring whether the respondent is currently adequately employed or underemployed. The primary independent variable is lagged job expectations—whether the respondent expected adequate or underemployment in the previous survey wave. Beginning in Model 2, the models also include a lagged binary employment variable, indicating whether the respondent was adequately or underemployed in the most recent observed survey wave. Model 3 includes lagged perception variables. Model 4 includes base year of survey administration, marital status, parental status, currently a student, and income as control variables. Model 5 includes the same control variables as Model 4, except parental status, student status, and income are lagged. *Table 2.7* presents odds ratios for ease of interpretation; see *Appendix 2J* for a comparable table with coefficients.

Results show the importance of job expectations in predicting future job outcomes; graduates who expected underemployment in the previous wave are three times more likely to be underemployed in the current wave compared to those who did not expect underemployment. Past underemployment also affects current underemployment; graduates who are underemployed in the previous wave are about 12 times more likely to be currently underemployed than those who were previously adequately employed.



Perceptions of underemployment do not seem to have an effect on future job outcomes. There is not a statistically significant relationship between graduates who saw their job as a stepping stone in the previous wave and current underemployment. Similarly, there is no relationship between previously expecting to work their current job for most of their life and current underemployment. Pursuing additional education may be buffering as those who were full-time students in the previous wave are half as likely to be underemployed. While previous results show having one child was correlated with expecting underemployment for women and Black graduates, having a child in the previous wave is not associated with underemployment.

Table 2.7. Logistic Random Effects of Job Expectations (Binary) on Underemployment (Binary), Odds Ratios

	Model 1	Model 2	Model 3	Model 4	Model 5
Job Expectations (lagged)	9.10 ** (1.26)	3.52 ** (0.33)	3.50 ** (0.35)	4.01 ** (0.43)	3.26 ** (0.35)
Underemployment (lagged)		12.48 ** (1.08)	12.47 ** (1.30)	12.00 ** (1.30)	14.81 ** (1.70)
BY of Survey Administration		1.00 0.00	1.00 0.00	1.00 (0.01)	1.00 0.00
Current Job is Stepping Stone (lagged) (Ref: Not at All)					
A Little			1.06 (0.15)	1.13 (0.16)	1.02 (0.14)
Some Extent			1.13 (0.16)	1.31 + (0.20)	1.04 (0.15)
Considerable Extent			0.90 (0.12)	1.04 (0.15)	0.82 (0.12)
Great Extent			1.08 (0.15)	1.28 + (0.19)	1.03 (0.15)
Expect Current Job Most of Life (lagged) (Ref: Not at All)					
A Little			1.17 (0.15)	1.18 (0.16)	1.13 (0.15)
Some Extent			1.09 (0.14)	1.14 (0.16)	1.08 (0.15)
Considerable Extent			0.84 (0.12)	0.92 (0.13)	0.79 (0.11)
Great Extent			0.84 (0.13)	0.88 (0.14)	0.86 (0.14)
Single (Ref: Engaged/Married)				1.12 (0.10)	1.13 (0.10)
Parental Status (Ref: No Kids)					
One Child				1.26 + (0.17)	
Two+ Children				1.12 (0.20)	

Table 2.7 Continued. Logistic Random Effects of Job Expectations (Binary) on Underemployment (Binary), Odds Ratios

	Model 1	Model 2	Model 3	Model 4	Model 5
Current Student (Ref: No)					
Part Time				1.07 (0.14)	
Full Time				1.21 (0.18)	
Current Income (Ref: < \$25k)					
\$25,00 - < \$50,000				0.48 ** (0.06)	
\$50,000 - < \$70,000				0.33 ** (0.05)	
\$70,000 - < \$100,000				0.45 ** (0.07)	
\$100,000+				0.50 ** (0.08)	
Lagged Parental Status (Ref: No Kids)					
One Child					0.88 -0.14
Two+ Children					1.33 -0.29
Lagged Student (Ref: No)					
Part Time					1.01 (0.13)
Full Time					0.39 ** (0.05)
Lagged Income (Ref: < \$25k)					
\$25,00 - < \$50,000					1.09 (0.12)
\$50,000 - < \$70,000					0.73 * (0.12)
\$70,000 - < \$100,000					0.69 * (0.10)
\$100,000+					0.82 (0.14)
_cons	0.16 ** (0.01)	0.20 (1.90)	0.00 (0.02)	15.50 (158.70)	0.05 (0.47)
var(_cons[id])	141.72 ** (78.48)	1.00 + 0.00	1.00 0.00	1.00 0.00	1.00 0.00
Wald Chi <sup>2</sup>	252.30	1138.82	1127.03	1112.45	1110.84
N Pearson-Year Observations	5,580	5,129	4,977	4,814	4,787
N Individuals	2,509	2,381	2,358	2,318	2,309

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).  
 Source: Monitoring the Future (1976 - 2015).

## Discussion

Underemployment is scarring because its consequences can extend beyond the period of underemployment itself (Clark et al. 2017; Gangl 2006; Oreopoulos et al. 2012). Graduates' interpretations and responses to underemployment can be *self-scarring* by exacerbating the consequences of underemployment. My results reinforce the importance of job expectations in shaping subsequent career trajectories.

Underemployed graduates downshift their job expectations by expecting underemployment in the future, and job expectations are predictive of job outcomes—meaning underemployed graduates are more likely to be underemployed in the future.

Surprisingly, graduates' interpretations of underemployment did not buffer the self-scarring of downshifting job expectations. Perceptions of a job as a stepping stone did not result in expectations of adequate employment nor better job outcomes. There could be several reasons for this. Perhaps graduates are reconciling initially-high job expectations with labor market realities (Johnson 2002). It's also possible that graduates are interpreting their performance attainment (or lack thereof) and adjusting their outcome expectations accordingly (Lent and Brown 2018; Lent et al. 1994). Recent scholarship found adolescents who expected to obtain more education than is necessary for their desired occupation have 30 percent higher wages and more prestigious occupations in adulthood (Kim et al. 2019), so it's also possible the broad occupational categories available in the MTF data are not capturing finer-grain differentiations among graduates' jobs.

It's important to consider that lowering job expectations may be a reasonable response to labor market realities or constrained choices. It's possible that some people, for many reasons, expect to be underemployed because that is the most viable option for them. In that case, respondents' lowering of job expectations may be a coping mechanism. Job expectations are not a suitable substitute for robust cognitive measures that would highlight graduates' underlying thought processes. It's also possible that graduates who lower their job expectations had lower self-efficacy or lower outcome expectations prior to entering the labor market (Lent and Brown 2018). I attempt to account for this by limiting the analytic sample to respondents who expected adequate employment in the base year, but that may not be sufficient for capturing other selection mechanisms. Future research could examine the longitudinal connection between underlying cognitive processes before and during underemployment, and how those correspond with behavioral outcomes.

These findings should be considered in light of several limitations. First, the structure of the MTF data presents some challenges that likely result in underestimations of underemployment and may skew to extreme cases. Because of the timing of the FU waves, I have up to a two-year observation gap between labor market events, such as college graduation and changing jobs, which could mask periods of underemployment. The survey provides a snapshot every two years but does not provide an ongoing measure of employment status, which would provide a more robust understanding of detailed career trajectories. MTF is typically fielded in the spring, so students who are about to graduate college will appear as current students that survey year and do not become part of the analytic sample until two

years later. Because of this timing, I'm likely first coding respondents as a college graduate at least one year after they graduated, and perhaps two years later depending on which follow-up sampling group they are assigned.<sup>11</sup> The first year after graduation is often a tumultuous time with quite a bit of labor market activity. Graduates who initially struggled may be settled into secure, adequate employment one- to two-years after graduation. This means two things for my results. First, measures of underemployment, especially immediately after college, are likely underestimated in this analysis. Because I'm likely not capturing the months immediately after graduation, there may be respondents who are underemployed immediately after graduation who are adequately employed at the time of the next follow up wave, meaning their underemployment experiences are not included in analysis. Secondly, I may be looking at extreme cases of people who are underemployed one to two years – and longer – after graduation. Perhaps the relationship between underemployment and job expectations does not exist for graduates who are only underemployed short-term. Therefore, data that captured employment outcomes more frequently would likely yield higher rates of underemployment.

Future research would benefit from data that could capture more frequent measures of graduates' job expectations and job outcomes. The MTF data may obscure the relationship between underemployment and lowering job expectations because it captures a snapshot of graduates' perceptions every two years. The exact

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<sup>11</sup> High School senior respondents are randomly split in half in the base year to be followed every other year; one-half begins its first FU at modal age 19, and the other half begins its first FU in the second year at modal age 20.

timing dimensions are unclear. Do graduates' subsequent job expectations shift during the first month of underemployment? Six months later? If there were both job expectation and employment status outcomes captured monthly, that would provide ideal information to better understand the sequential timing of the connection between underemployment and job expectations.

The employment variables in the MTF data present another challenge by emphasizing extensive occupational categories. This broad stroke does not allow for considerations of industry, specific jobs within an occupation, or other markers of local labor market context that may affect graduates' perceptions of employment and career trajectories. Being an Office Manager at Google is a qualitatively different experience than being an Office Manager at a local small business, and this distinction does not exist in the MTF data. Industry differences have implications for occupational prestige, subjective interpretations of underemployment, and viable career pathways to move up within a given field. Furthermore, college graduates are new workers who have little labor market experience compared to seasoned employees. There are many jobs for which recent graduates are realistically unqualified. An ideal measure of underemployment would take into account appropriate entry-level jobs for recent graduates. Future research should engage with existing datasets that include detailed employment information to delineate relevant entry-level positions for recent graduates, which because of credential inflation have changed over time, to identify suitable entry-level positions and encompass that dimension in measures of underemployment. This more robust measure of

underemployment would refine our understanding of how graduates interpret and respond to underemployment.

The American Dream posits that individual perseverance will lead to increased economic security. Young people invest in college as a pathway to a good job. The fragile value of a college degree in the new economy means underemployment can be scarring for graduates. Expanding the concept of scarring effects to incorporate the *self-scarring* supply-side behavior of the underemployed themselves illustrates the importance of graduates' interpretation of their status in shaping their subsequent career outcomes. Given that 42 percent of recent graduates are underemployed (Federal Reserve Bank of New York 2020), normalizing the experience and providing insight into potential protective factors – such as maintaining high job expectations – may be a useful intervention.



## Appendixes

### Appendix 2A. Monitoring the Future (1976 – 2015) Analytic Sample Construction and Missing Data

Appendix Table 2A. Monitoring the Future (1976 - 2015) Analytic Sample Construction and Missing Data

	Cases Lost	Cases Left
Raw Sample Respondents (1976-2015)		94,136
Form 4 Respondents	77,509	16,627
Completed at least 1 FU*	3,886	12,741
Bachelor's Degree +	8,341	4,400
Civilians (removes active duty military & veterans)	143	4,253
Expect Adequate Employment in Base Year	889	3,364
<i>Analytic Sample Respondents</i>		<i>3,364</i>
Analytic Sample Person-Year Observations		23,548
<i>Limit to Observations After Obtain Bachelor's Degree</i>	<i>13,444</i>	<i>10,104</i>

Notes: \*This also eliminates BY 2014/2015 who had not timed into a FU yet.

The final analytic sample is 10,104 person-year observations from 3,364 respondents.

**Appendix 2B. U.S. Department of Labor O\*NET Education Requirements for Monitoring the Future Jobs, Percentages**

MTF Code	O*NET Code	MTF Occupation Job Examples	High School	Post Second. Certificate	Associate's	Bachelor's+
<i>Underemployment</i>						
1		Laborer				
	53-7061.00	Car Washer	52			
	53-7081.00	Sanitary Worker	64			
2		Service Worker				
	35-2014.00	Cook	44	18		
	35-3031.00	Waiter	57			7
	39-5011.00	Barber	25	29		
	37-2011.00	Janitor	72			7
3		Operative or Semi-Skilled Worker				
	49-3023.02	Garage Worker	29	49		
	53-3021.00	Taxicab, Bus, or Truck Driver	84			
	51-9198.00	Assembly Line Worker	49	18		
	51-4121.06	Welder	40	41		
4		Sales Clerk				
	41-4011.00	Phone Sales	14			39
	41-2031.00	Department Store Clerk	63		10	
5		Clerical or Office Worker				
	43-3071.00	Bank Teller	73			8
	43-3031.00	Bookkeeper	41	21		12
	43-6014.00	Secretary	39		37	
	43-5051.00	Postal Clerk/Carrier	68			
6		Protective Service				
	33-3051.01	Police Officer	35	27	24	
	33-2011.01	Firefighter	32	27		
	33-3021.01	Detective	38		19	
8		Craftsman or Skilled Worker				
	47-2031.02	Carpenter	39	28		
	47-2111.00	Electrician	18	59		
	47-2021.00	Brick Layer	70			
	51-4111.00	Tool and Die Maker		68	17	
9		*Farm Owner, Farm Manager			7	19
10		*Owner of a Small Business				39
11		Sales Representative				
	41-9021.00	Real Estate Broker	12			37
	41-3031.02	Bond Salesman	62			22
12		Manager or Administrator				
	11-3011.00	Office Manager	34	13		24

11-2022.00	Sales Manager		13	74
11-9032.00	School Administrator			81
13-1041.04	Government Official	16	25	39

*Adequate Employment*

13	Professional w/o Doctoral Degree			
29-1141.00	Registered Nurse		66	23
25-4021.00	Librarian			78
21-1021.00	Social Worker		6	95
17-2051.00	Civil Engineer			82
14	Professional w/ Doctoral Degree			
23-1011.00	Lawyer			99
29-1069.08	Physician			56
29-1021.00	Dentist		6	81
25-1065.00	College Professor			94

*Notes: totals don't add up to 100% because not all educational categories are presented.*

*\*O\*NET does not include business/farm ownership data, so supplemental sources were used for the average educational attainment of business owners (Lichtenstein 2014) and farm owners (Dohm 2005).*

## Appendix 2C. Current Population Survey Respondents with a Bachelor's Degree or Higher in Monitoring the Future Jobs, Percentages

	Laborer		Service Worker				Operative or Semi-Skilled Worker				Sales Clerk
	Car Washer	Sanitary Worker	Cook	Waiter	Barber	Janitor	Garage Worker	Taxi/Bus/Truck Driver	Assembly Line	Welder	Phone Sales
1975	2%	0%	1%	3%	0%	2%	0%	4%	2%	1%	23%
1976	0%	2%	2%	4%	0%	2%	1%	5%	1%	2%	24%
1977	1%	1%	2%	3%	0%	3%	0%	4%	1%	1%	23%
1978	1%	3%	2%	3%	0%	2%	3%	4%	2%	1%	26%
1979	2%	2%	2%	4%	0%	2%	2%	5%	1%	1%	26%
1980	1%	3%	2%	5%	3%	3%	2%	3%	2%	2%	25%
1981	1%	0%	2%	5%	1%	3%	3%	3%	1%	2%	25%
1982	1%	2%	3%	5%	4%	3%	1%	5%	3%	1%	27%
1983	1%	0%	4%	7%	0%	3%	1%	5%	1%	1%	20%
1984	0%	0%	3%	4%	0%	3%	2%	6%	2%	1%	18%
1985	1%	0%	3%	5%	3%	3%	3%	4%	6%	1%	19%
1986	1%	2%	3%	6%	0%	2%	2%	5%	6%	2%	21%
1987	2%	2%	4%	6%	2%	3%	2%	5%	3%	1%	22%
1988	2%	0%	4%	6%	2%	2%	3%	7%	0%	1%	21%
1989	2%	3%	4%	6%	7%	3%	2%	7%	8%	1%	22%
1990	1%	2%	4%	7%	2%	2%	4%	5%	5%	3%	23%
1991	3%	4%	4%	7%	0%	3%	3%	8%	1%	3%	22%
1992	3%	3%	4%	7%	2%	3%	3%	6%	0%	1%	23%
1993	2%	4%	3%	6%	7%	3%	5%	7%	0%	1%	23%
1994	2%	0%	4%	7%	3%	3%	4%	9%	4%	1%	25%
1995	6%	4%	4%	7%	9%	3%	3%	8%	3%	1%	24%
1996	2%	4%	3%	8%	9%	3%	2%	8%	3%	2%	24%
1997	2%	0%	4%	7%	9%	4%	4%	10%	0%	2%	23%
1998	3%	0%	4%	5%	3%	3%	2%	9%	3%	3%	23%
1999	2%	0%	3%	7%	9%	4%	4%	7%	6%	0%	24%
2000	1%	0%	3%	6%	4%	3%	4%	9%	4%	1%	23%
2001	2%	2%	4%	7%	9%	3%	2%	9%	0%	3%	25%
2002	2%	5%	4%	7%	9%	3%	3%	8%	3%	2%	26%
2003	3%	7%	5%	7%	7%	6%	1%	11%	0%	2%	35%
2004	2%	5%	6%	8%	4%	4%	4%	10%	4%	3%	35%
2005	2%	0%	5%	7%	7%	4%	5%	9%	0%	2%	36%
2006	2%	1%	5%	7%	2%	4%	5%	9%	0%	3%	34%
2007	2%	4%	7%	7%	3%	5%	1%	10%	6%	3%	36%
2008	2%	3%	6%	9%	3%	5%	6%	10%	7%	3%	38%
2009	3%	10%	6%	10%	2%	5%	3%	11%	12%	3%	38%
2010	2%	3%	7%	12%	2%	5%	8%	12%	9%	3%	39%
2011	4%	9%	6%	8%	2%	5%	10%	11%	9%	3%	40%
2012	3%	1%	8%	10%	7%	5%	2%	14%	9%	4%	40%
2013	4%	3%	8%	10%	5%	6%	3%	13%	17%	2%	44%
2014	3%	2%	8%	10%	9%	6%	13%	15%	0%	2%	42%
2015	2%	3%	7%	9%	9%	5%	14%	15%	0%	5%	42%
Mean	2%	2%	4%	7%	4%	3%	3%	8%	4%	2%	28%
N	8,311	1,994	70,444	48,477	2,594	63,406	7,030	21,765	2,780	17,710	99,503

**Appendix 2C Continued. Current Population Survey Respondents with a Bachelor's Degree or Higher in Monitoring the Future Jobs, Percentages**

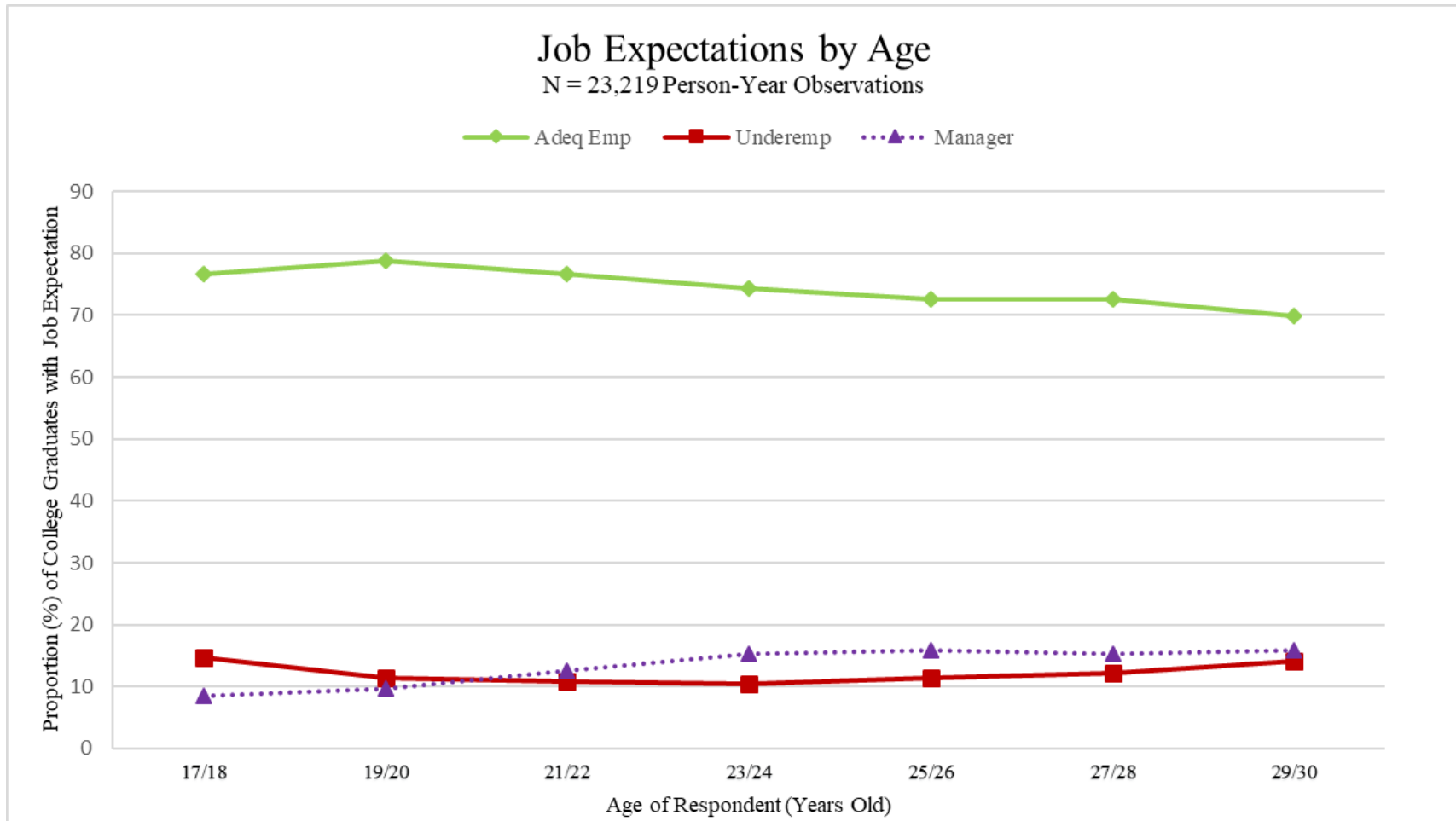
	Clerical or Office			Protectice Service			Craftsman or Skilled Worker				Farm Owner/ Mngr	
	Bank Teller	Book-keeper	Secretary	Postal Clerk Carrier	Police Officer	Firefighter	Detective	Carpenter	Electrician	Brick Layer	Tool and Die Maker	Farm Owner Mngr
1975	6%	9%	7%	4%	12%	2%	9%	4%	2%	0%	3%	6%
1976	8%	10%	8%	6%	5%	2%	13%	3%	2%	0%	3%	7%
1977	9%	8%	8%	8%	6%	3%	17%	4%	4%	0%	3%	8%
1978	8%	10%	7%	8%	14%	4%	17%	5%	3%	0%	2%	8%
1979	8%	8%	8%	9%	9%	4%	22%	6%	3%	0%	3%	8%
1980	9%	10%	8%	8%	8%	5%	20%	5%	4%	0%	3%	8%
1981	7%	10%	9%	7%	9%	8%	18%	6%	5%	7%	2%	9%
1982	8%	9%	9%	8%	13%	9%	22%	6%	4%	4%	4%	10%
1983	9%	10%	8%	8%	13%	12%	21%	5%	3%	5%	11%	10%
1984	6%	11%	9%	9%	13%	12%	22%	5%	4%	4%	6%	12%
1985	8%	11%	9%	10%	9%	10%	26%	6%	6%	4%	7%	13%
1986	11%	11%	9%	10%	13%	8%	26%	6%	6%	4%	9%	9%
1987	10%	13%	10%	12%	13%	8%	24%	6%	3%	2%	7%	9%
1988	8%	14%	10%	12%	14%	9%	24%	5%	5%	0%	4%	11%
1989	5%	13%	10%	12%	16%	13%	24%	5%	4%	4%	3%	9%
1990	8%	13%	10%	10%	12%	15%	26%	7%	4%	5%	9%	12%
1991	7%	13%	10%	12%	10%	10%	25%	6%	6%	2%	8%	12%
1992	9%	13%	10%	10%	16%	13%	22%	5%	4%	3%	7%	10%
1993	15%	12%	9%	9%	14%	12%	25%	6%	5%	4%	4%	13%
1994	11%	14%	10%	11%	11%	14%	27%	6%	4%	4%	5%	12%
1995	9%	14%	10%	12%	10%	17%	30%	6%	6%	5%	3%	12%
1996	6%	15%	10%	11%	11%	11%	32%	4%	4%	3%	2%	14%
1997	9%	13%	10%	13%	12%	14%	31%	6%	6%	3%	4%	15%
1998	11%	15%	11%	14%	13%	12%	34%	6%	3%	2%	3%	15%
1999	10%	12%	10%	15%	13%	13%	29%	5%	6%	3%	4%	17%
2000	9%	13%	9%	12%	12%	19%	29%	4%	6%	3%	6%	16%
2001	11%	14%	12%	12%	13%	14%	33%	6%	6%	6%	5%	20%
2002	10%	16%	12%	12%	16%	18%	34%	7%	7%	5%	4%	16%
2003	9%	14%	16%	15%	13%	19%	34%	5%	7%	4%	5%	17%
2004	9%	17%	15%	12%	17%	21%	33%	6%	7%	2%	3%	17%
2005	9%	17%	15%	13%	16%	23%	35%	6%	7%	7%	3%	20%
2006	10%	17%	17%	18%	16%	14%	36%	7%	7%	6%	6%	24%
2007	11%	17%	18%	18%	16%	20%	37%	6%	9%	8%	7%	21%
2008	11%	19%	19%	14%	16%	27%	38%	7%	8%	8%	5%	19%
2009	15%	19%	19%	15%	18%	22%	39%	8%	6%	6%	6%	22%
2010	16%	19%	21%	18%	14%	21%	41%	7%	9%	5%	6%	22%
2011	17%	21%	22%	17%	19%	23%	42%	9%	8%	0%	5%	21%
2012	18%	21%	22%	15%	17%	27%	42%	8%	7%	2%	7%	23%
2013	18%	24%	25%	16%	21%	25%	44%	7%	8%	11%	3%	23%
2014	22%	22%	26%	20%	21%	26%	40%	7%	8%	10%	9%	24%
2015	23%	22%	27%	18%	25%	27%	39%	6%	11%	8%	7%	29%
Mean	11%	14%	13%	12%	14%	14%	29%	6%	6%	4%	5%	15%
N	12,648	49,563	98,528	15,056	8,801	7,553	19,022	41,125	20,676	3,699	3,174	35,686

## Appendix 2C Continued. Current Population Survey Respondents with a Bachelor's Degree or Higher in Monitoring the Future Jobs, Percentages

	Sales Representative			Manager or Administrator				Professional w/o Doctoral Degree				Professional w/ Doctoral Degree			
	Insurance Agent	Real Estate Broker	Bond Salesman	Office Mngr	Sales Mngr	School Admin.	Govt Official	Reg. Nurse	Librarian	Social Worker	Civil Eng.	Lawyer	Physician	Dentist	College Prof
1975	30%	30%	63%	18%	N/A	92%	N/A	22%	67%	74%	72%	97%	98%	96%	95%
1976	35%	29%	59%	13%	N/A	88%	N/A	26%	75%	75%	79%	98%	98%	100%	93%
1977	35%	32%	66%	17%	N/A	88%	N/A	28%	73%	73%	76%	99%	97%	100%	91%
1978	34%	35%	64%	20%	N/A	86%	N/A	29%	64%	72%	74%	96%	98%	95%	91%
1979	36%	32%	63%	18%	N/A	88%	N/A	32%	71%	71%	67%	95%	99%	95%	93%
1980	37%	26%	70%	25%	N/A	90%	N/A	32%	73%	71%	76%	96%	99%	94%	94%
1981	37%	37%	66%	19%	N/A	89%	N/A	31%	67%	70%	72%	95%	98%	98%	94%
1982	42%	34%	68%	17%	N/A	86%	N/A	33%	73%	75%	73%	98%	99%	97%	93%
1983	36%	38%	66%	26%	23%	85%	67%	40%	73%	74%	75%	97%	99%	100%	93%
1984	37%	39%	70%	23%	23%	82%	47%	43%	69%	75%	75%	98%	98%	100%	93%
1985	40%	42%	65%	26%	23%	80%	42%	44%	66%	72%	76%	97%	98%	99%	93%
1986	40%	40%	70%	26%	24%	80%	11%	46%	66%	68%	72%	97%	94%	99%	89%
1987	42%	37%	65%	22%	22%	82%	23%	45%	66%	71%	76%	97%	97%	99%	93%
1988	40%	39%	66%	24%	23%	81%	30%	49%	72%	73%	75%	96%	92%	95%	87%
1989	43%	41%	68%	30%	23%	76%	67%	52%	73%	68%	75%	95%	94%	95%	91%
1990	45%	40%	72%	20%	25%	75%	36%	53%	67%	72%	74%	95%	96%	95%	91%
1991	41%	41%	66%	28%	26%	77%	18%	52%	66%	71%	78%	96%	96%	98%	93%
1992	42%	37%	64%	29%	25%	80%	42%	48%	70%	72%	83%	98%	98%	99%	93%
1993	40%	40%	66%	23%	24%	73%	49%	46%	67%	69%	80%	97%	97%	98%	90%
1994	43%	45%	69%	27%	26%	65%	14%	48%	72%	68%	82%	99%	98%	96%	89%
1995	47%	44%	69%	32%	25%	73%	38%	51%	74%	71%	82%	98%	97%	99%	91%
1996	42%	40%	63%	29%	26%	69%	43%	50%	74%	69%	80%	98%	97%	98%	89%
1997	40%	41%	62%	24%	27%	72%	33%	51%	69%	68%	84%	98%	99%	100%	89%
1998	39%	37%	79%	28%	27%	75%	14%	52%	74%	72%	84%	98%	99%	100%	92%
1999	48%	38%	67%	28%	27%	75%	42%	52%	75%	71%	86%	98%	100%	98%	93%
2000	44%	42%	71%	29%	27%	76%	43%	53%	70%	73%	82%	99%	100%	100%	89%
2001	41%	38%	66%	25%	28%	78%	36%	56%	75%	73%	87%	98%	98%	99%	92%
2002	41%	43%	65%	30%	29%	78%	56%	58%	71%	73%	79%	97%	97%	98%	93%
2003	42%	44%	60%	28%	28%	79%	68%	57%	78%	73%	87%	97%	97%	98%	94%
2004	45%	44%	64%	27%	27%	79%	69%	56%	82%	74%	87%	98%	98%	99%	97%
2005	42%	44%	63%	28%	28%	79%	66%	55%	78%	75%	82%	97%	98%	100%	94%
2006	44%	46%	62%	26%	27%	82%	67%	55%	78%	73%	79%	98%	98%	98%	97%
2007	45%	42%	63%	27%	28%	79%	65%	58%	80%	77%	85%	98%	98%	97%	97%
2008	45%	48%	70%	31%	26%	82%	69%	59%	81%	75%	87%	97%	98%	98%	96%
2009	50%	47%	68%	29%	29%	84%	69%	59%	80%	80%	83%	97%	96%	97%	96%
2010	44%	42%	71%	30%	30%	81%	69%	59%	79%	77%	85%	98%	98%	99%	96%
2011	47%	51%	69%	34%	30%	80%	67%	61%	72%	79%	88%	98%	98%	99%	94%
2012	51%	48%	70%	30%	31%	82%	72%	63%	72%	75%	83%	98%	99%	98%	98%
2013	54%	48%	62%	32%	31%	83%	72%	62%	79%	80%	88%	98%	98%	97%	98%
2014	50%	49%	69%	32%	31%	87%	73%	65%	79%	77%	84%	98%	98%	98%	94%
2015	52%	52%	74%	35%	31%	80%	73%	64%	75%	76%	87%	98%	98%	97%	96%
Mean	42%	41%	67%	26%	27%	80%	50%	49%	73%	73%	80%	97%	98%	98%	93%
N	15,016	20,358	7,811	21,241	91,145	17,731	14,009	53,842	5,676	16,753	7,185	21,718	17,153	4,021	10,465

Note: shaded cell indicates when a proportion of respondents moves from fewer than 50 percent to more than 50 percent.

**Appendix 2D. Job Expectations by Age, Manager as Separate Category**



**Appendix 2E. Linear Probability, Logistic Fixed Effects, and Logistic Random Effects Models of Underemployment (Binary) on Job Expectations (Binary), Analytic Sample of all Base Year Job Expectations, Coefficients**

	Model 1				Model 2				Model 3			
	LPM (W)	Log, FE	Log, RE	Log, RE (W)	LPM (W)	Log, FE	Log, RE	Log, RE (W)	LPM (W)	Log, FE	Log, RE	Log, RE (W)
Underemployed	0.36 ** (0.01)	1.44 ** (0.13)	2.68 ** (0.10)	2.56 ** (0.10)	0.36 ** (0.01)	1.44 ** (0.13)	2.68 ** (0.10)	2.56 ** (0.10)	0.41 ** (0.01)	1.73 ** (0.15)	3.24 ** (0.11)	3.11 ** (0.11)
Base Year of Survey Admin.					0.00 ** (0.00)	(.)	-0.02 ** (0.01)	-0.02 ** (0.01)	0.00 (0.00)	(.)	0.00 (0.01)	0.00 (0.01)
Single (Ref: Engaged/Married)									-0.03 ** (0.01)	-0.29 + (0.15)	-0.26 ** (0.10)	-0.25 * (0.10)
Parental Status (Ref: No Kids)												
One Child									0.00 (0.01)	0.39 + (0.21)	0.06 (0.15)	0.05 (0.14)
Two+ Children									0.02 (0.02)	0.17 (0.28)	0.11 (0.20)	0.17 (0.19)
Current Student (Ref: No)												
Part Time									-0.05 ** (0.01)	-0.34 + (0.18)	-0.39 ** (0.14)	-0.38 ** (0.14)
Full Time									-0.16 ** (0.01)	-0.62 ** (0.18)	-1.36 ** (0.14)	-1.30 ** (0.15)
Current Income (Ref: < \$25k)												
\$25,000 - < \$50,000									0.11 ** (0.01)	0.42 ** (0.14)	0.80 ** (0.11)	0.86 ** (0.12)
\$50,000 - < \$70,000									0.12 ** (0.01)	0.58 ** (0.19)	1.03 ** (0.15)	1.03 ** (0.15)
\$70,000 - < \$100,000									0.14 ** (0.01)	0.66 ** (0.19)	1.12 ** (0.15)	1.18 ** (0.16)
\$100,000+									0.14 ** (0.02)	0.46 * (0.22)	1.10 ** (0.16)	1.12 ** (0.16)
Constant	0.08 ** (0.00)		-3.38 ** (0.10)	-3.18 ** (0.09)	3.03 ** (0.92)		30.32 ** (11.64)	27.49 * (10.86)	-0.07 (0.93)		-3.80 (11.36)	-4.33 (10.89)
var_cons[id]			3.84 ** (0.36)	2.75 ** (0.27)			3.84 ** (0.36)	2.75 ** (0.27)			2.92 ** (0.31)	2.09 ** (0.24)
chi <sup>2</sup>		147.56	732.64	655.99		147.56	735.67	657.66		203.11	898.40	766.12
N Person-Year Observations	8,508	2,302	8,508	8,508	8,508	2,302	8,508	8,508	8,208	2,193	8,208	8,208
N Individuals		686	3,153	3,153		686	3,153	3,153		662	3,109	3,109

Notes: LPM: linear probability model (OLS); Logistic Regression FE: Fixed Effects and RE: Random Effects. Survey weights (W) are applied in the LPM model and second Logistic RE model. Year is omitted from the FE model in Model 2 and Model 3 due to collinearity. Table 2.3 uses an analytic sample of respondents who expected adequate employment in the BY. Table 2E includes respondents who expected underemployment *and* respondents who expected adequate employment in the BY. Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).



## Appendix 2F. Proportion of Subsample with Bachelor's Degree or Higher

Appendix 2F. Summary Table of Figure 2.4: Proportion of Subsample with Bachelor's Degree+

Base Year	White Men		White Women		Black Men		Black Women	
	% BA+	N	% BA+	N	% BA+	N	% BA+	N
1976-1979	21%	3,146	20%	3,694	24%	197	15%	360
1980-1984	24%	3,603	22%	4,739	20%	249	16%	484
1985-1989	29%	2,987	29%	3,898	11%	160	26%	309
1990-1994	28%	2,289	31%	2,974	16%	188	16%	321
1995-1999	35%	1,870	34%	2,677	15%	338	25%	290
2000-2004	35%	1,695	35%	2,486	27%	118	27%	257
2005-2009	27%	1,076	29%	1,528	20%	113	16%	212
<i>Avg / Total</i>	<i>28%</i>	<i>16,666</i>	<i>29%</i>	<i>21,996</i>	<i>19%</i>	<i>1,363</i>	<i>20%</i>	<i>2,233</i>

*Notes:* Base Year is the year of survey administration in which respondents were High School Seniors; % BA+ is the average proportion of those respondents with a bachelor's degree or higher; and N reflects the total number of respondents in that subsample.

## Appendix 2G. Logistic Random Effects of Perception Mechanisms, Coefficients

Appendix Table 2G. Logistic Random Effects of Perception Mechanisms on Job Expectations (Binary), Modeled Separately by Cumulative Underemployment After College, Coefficients

	100% Adeq. Emp.	1-50% Underemp	51-99% Underemp.	100% Underemp.
Current Job is Stepping Stone (Ref: Not at All)				
A Little	0.32 (0.39)	0.64 * (0.26)	-0.27 (0.39)	0.48 * (0.23)
Some Extent	0.02 (0.38)	0.50 + (0.27)	0.05 (0.39)	1.11 ** (0.25)
Considerable Extent	0.12 (0.36)	0.79 ** (0.26)	0.50 (0.36)	1.40 ** (0.26)
Great Extent	0.48 (0.36)	0.73 ** (0.27)	0.62 + (0.36)	1.08 ** (0.28)
Expect Current Job Most of Life (Ref: Not at All)				
A Little	-0.52 + (0.27)	-0.65 ** (0.22)	0.21 (0.31)	0.71 ** (0.21)
Some Extent	-0.60 * (0.26)	-0.59 ** (0.22)	0.65 * (0.32)	1.11 ** (0.26)
Considerable Extent	-1.23 ** (0.27)	-1.27 ** (0.25)	0.42 (0.35)	1.10 ** (0.29)
Great Extent	-1.66 ** (0.32)	-1.71 ** (0.31)	-0.35 (0.46)	0.62 + (0.33)
Base Year of Survey Admin.	0.03 * (0.01)	0.00 (0.01)	0.00 (0.01)	-0.03 ** (0.01)
Single (Ref: Engaged/Married)	-0.02 (0.20)	-0.25 (0.17)	-0.41 (0.26)	-0.58 ** (0.18)
Parental Status (Ref: No Kids)				
One Child	-0.15 (0.33)	-0.15 (0.27)	0.12 (0.41)	0.37 (0.26)
Two+ Children	-0.60 (0.49)	0.15 (0.43)	-0.33 (0.46)	0.46 (0.37)
Current Student (Ref: No)				
Part Time	0.21 (0.25)	0.18 (0.23)	-0.66 + (0.35)	-0.83 ** (0.25)
Full Time	-0.81 * (0.33)	-0.57 * (0.24)	-0.62 * (0.31)	-0.79 ** (0.21)
Current Income (Ref: < \$25k)				
\$25,00 - < \$50,000	0.18 (0.25)	0.33 (0.21)	0.65 ** (0.24)	0.38 * (0.17)
\$50,000 - <\$70,000	-0.10 (0.32)	-0.02 (0.28)	1.65 ** (0.39)	1.18 ** (0.29)
\$70,000 - < \$100,000	0.32 (0.31)	0.73 ** (0.27)	1.12 ** (0.38)	0.60 * (0.29)
\$100,000+	0.45 (0.33)	0.75 * (0.30)	1.88 ** (0.43)	0.08 (0.31)
Constant	-56.23 * (23.88)	-1.85 (20.59)	1.34 (29.40)	66.46 ** (18.83)
var(_cons[id])	2.95 ** (0.65)	1.48 ** (0.38)	1.51 ** (0.44)	2.04 ** (0.42)
Wald Chi <sup>2</sup>	60.99	73.47	88.19	186.24
N Pearson-Year Observations	3,389	2,431	815	1,849
N Individuals	1,268	753	248	829

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Analogous to Table 2.4. Source: Monitoring the Future (1976 - 2015).

## Appendix 2H. Logistic Random Effects of Changes by Decade, Coefficients

Appendix Table 2H. Logistic Random Effects of Underemployment (Binary) on Job Expectations, Modeled Separately by Base Year of Survey Administration (Grouped by Decade), Coefficients

	1970s	1980s	1990s	2000s	All Years
Underemployment	3.85 ** (0.34)	3.31 ** (0.22)	3.39 ** (0.22)	3.19 ** (0.29)	3.33 ** (0.13)
Current Job is Stepping Stone (Ref: Not at All)					
A Little	0.46 (0.45)	0.62 * (0.28)	0.67 * (0.29)	0.49 (0.39)	0.60 ** (0.16)
Some Extent	0.74 (0.46)	1.05 ** (0.29)	0.83 ** (0.30)	1.00 ** (0.35)	0.94 ** (0.16)
Considerable Extent	1.23 ** (0.47)	1.34 ** (0.27)	1.12 ** (0.29)	1.07 ** (0.35)	1.19 ** (0.16)
Great Extent	1.46 ** (0.51)	1.36 ** (0.28)	1.49 ** (0.30)	1.21 ** (0.36)	1.35 ** (0.16)
Expect Current Job Most of Life (Ref: Not at All)					
A Little	0.28 (0.42)	0.57 * (0.23)	0.14 (0.26)	0.28 (0.29)	0.33 * (0.14)
Some Extent	0.21 (0.42)	0.52 * (0.22)	0.33 (0.27)	0.53 + (0.30)	0.43 ** (0.14)
Considerable Extent	-0.41 (0.50)	-0.07 (0.23)	-0.30 (0.27)	0.32 (0.33)	-0.10 (0.15)
Great Extent	-1.01 + (0.54)	-0.41 (0.28)	-0.75 * (0.32)	-0.37 (0.36)	-0.53 ** (0.17)
Single (Ref: Engaged/Married)	0.12 (0.30)	-0.09 (0.17)	-0.31 + (0.19)	-0.68 ** (0.21)	-0.27 ** (0.10)
Parental Status (Ref: No Kids)					
One Child	-0.04 (0.38)	0.28 (0.26)	0.53 * (0.22)	-0.56 + (0.30)	0.16 (0.14)
Two+ Children	-0.10 (0.45)	0.44 (0.37)	0.09 (0.29)	0.36 (0.50)	0.20 (0.20)
Current Student (Ref: No)					
Part Time	0.14 (0.31)	-0.12 (0.24)	-0.88 ** (0.27)	-0.30 (0.35)	-0.35 * (0.15)
Full Time	-0.67 (0.52)	-1.17 ** (0.25)	-1.09 ** (0.26)	-1.15 ** (0.32)	-1.10 ** (0.15)
Current Income (Ref: < \$25k)					
\$25,000 - < \$50,000	0.94 * (0.41)	0.42 * (0.21)	0.82 ** (0.21)	0.82 ** (0.23)	0.70 ** (0.12)
\$50,000 - < \$70,000	1.52 ** (0.49)	0.68 ** (0.25)	0.85 ** (0.28)	0.51 + (0.31)	0.83 ** (0.15)
\$70,000 - < \$100,000	1.40 ** (0.42)	0.55 * (0.27)	1.37 ** (0.28)	1.18 ** (0.43)	0.97 ** (0.16)
\$100,000+	1.53 ** (0.44)	0.75 ** (0.27)	0.95 ** (0.28)	1.15 * (0.55)	0.93 ** (0.16)
Constant	-5.31 ** (0.62)	-4.62 ** (0.37)	-4.60 ** (0.37)	-4.33 ** (0.47)	-4.59 ** (0.21)
var(_cons[id])	0.87 (0.59)	1.91 ** (0.39)	1.89 ** (0.43)	2.36 ** (0.60)	1.87 ** (0.23)
Wald Chi <sup>2</sup>	183.43	303.83	284.91	168.33	834.93
N Pearson-Year Observations	919	2,718	2,518	1,782	7,979
N Individuals	329	970	918	823	3,081

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Analogous to Table 2.5. *Souce* : Monitoring the Future (1976 - 2015)

## Appendix 2I. Logistic Random Effects by Gender & Race, Coefficients

Appendix Table 2I. Logistic Random Effects of Underemployment (Binary) on Job Expectations (Binary), Modeled Separately by Gender and Race, Coefficients

	Men	Women	White	Black
Underemployment	3.41 ** (0.19)	3.27 ** (0.17)	3.58 ** (0.14)	2.34 ** (0.45)
Current Job is Stepping Stone (Ref: Not at All)				
A Little	0.57 * (0.26)	0.65 ** (0.21)	0.80 ** (0.19)	-0.08 (0.60)
Some Extent	0.97 ** (0.26)	0.92 ** (0.21)	1.07 ** (0.19)	0.55 (0.49)
Considerable Extent	1.28 ** (0.25)	1.13 ** (0.20)	1.35 ** (0.18)	0.61 (0.57)
Great Extent	1.24 ** (0.26)	1.44 ** (0.21)	1.50 ** (0.19)	0.69 (0.56)
Expect Current Job Most of Life (Ref: Not at All)				
A Little	0.25 (0.21)	0.40 * (0.18)	0.40 * (0.15)	0.54 (0.48)
Some Extent	0.29 (0.20)	0.53 ** (0.19)	0.54 ** (0.16)	-0.19 (0.54)
Considerable Extent	-0.09 (0.21)	-0.10 (0.20)	0.01 (0.16)	-0.39 (0.70)
Great Extent	-0.32 (0.24)	-0.79 ** (0.25)	-0.48 * (0.19)	-0.59 (0.69)
Base Year of Survey Admin.	0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.02 (0.02)
Single (Ref: Engaged/Married)	-0.33 * (0.15)	-0.27 * (0.13)	-0.21 + (0.11)	-0.40 (0.48)
Parental Status (Ref: No Kids)				
One Child	-0.21 (0.22)	0.40 * (0.18)	0.08 (0.16)	0.87 * (0.41)
Two+ Children	0.01 (0.31)	0.29 (0.25)	0.12 (0.22)	0.69 (0.79)
Current Student (Ref: No)				
Part Time	-0.29 (0.23)	-0.37 * (0.19)	-0.26 (0.16)	-1.48 ** (0.55)
Full Time	-1.14 ** (0.23)	-1.05 ** (0.19)	-1.17 ** (0.17)	-0.38 (0.48)
Current Income (Ref: < \$25k)				
\$25,00 - < \$50,000	0.99 ** (0.20)	0.55 ** (0.15)	0.71 ** (0.14)	0.37 (0.43)
\$50,000 - < \$70,000	0.84 ** (0.23)	0.81 ** (0.20)	0.81 ** (0.17)	1.17 * (0.56)
\$70,000 - < \$100,000	1.08 ** (0.25)	0.87 ** (0.21)	0.91 ** (0.18)	1.28 * (0.61)
\$100,000+	1.07 ** (0.24)	0.62 ** (0.24)	0.95 ** (0.19)	0.73 (0.64)
Constant	-22.67 (17.22)	13.99 (14.17)	-0.32 (12.43)	28.12 (38.83)
var(_cons[id])	2.03 ** (0.37)	1.70 ** (0.30)	2.14 ** (0.28)	1.49 (0.98)
Wald Chi <sup>2</sup>	349.16	516.24	735.59	46.96
N Pearson-Year Observations	3,275	4,704	6,787	418
N Individuals	1,265	1,816	2,576	178

Note: Values in parentheses are robust standard errors.

+ < .10; \* < .05; \*\* < .01 (two-tailed tests). Analogous to Table 2.6.

Source: Monitoring the Future (1976 - 2015).

## Appendix 2J. Logistic Random Effects of Job Expectations (Binary) on Underemployment (Binary), Coefficients

Appendix Table 2J. Logistic Random Effects of Job Expectations (Binary) on Underemployment (Binary), Coefficients

	Model 1	Model 2	Model 3	Model 4	Model 5
Job Expectations (lagged)	2.21 ** (0.14)	1.26 ** (0.09)	1.25 ** (0.10)	1.39 ** (0.11)	1.19 ** (0.11)
Underemployment (lagged)		2.52 ** (0.09)	2.52 ** (0.10)	2.49 ** (0.11)	2.69 ** (0.12)
BY of Survey Administration		0.00 0.00	0.00 0.00	0.00 (0.01)	0.00 0.00
Current Job is Stepping Stone (lagged) (Ref: Not at All)					
A Little			0.06 (0.14)	0.12 (0.14)	0.02 (0.14)
Some Extent			0.12 (0.14)	0.27 + (0.15)	0.06 (0.15)
Considerable Extent			-0.10 (0.13)	0.04 (0.14)	-0.18 (0.14)
Great Extent			0.08 (0.14)	0.25 + (0.15)	0.06 (0.14)
Expect Current Job Most of Life (lagged) (Ref: Not at All)					
A Little			0.16 (0.13)	0.17 (0.13)	0.12 (0.13)
Some Extent			0.08 (0.13)	0.13 (0.14)	0.09 (0.14)
Considerable Extent			-0.18 (0.14)	-0.09 (0.14)	-0.21 (0.15)
Great Extent			-0.17 (0.16)	-0.12 (0.16)	-0.14 (0.16)
Single (Ref: Engaged/Married)				0.11 (0.09)	0.12 (0.09)
Parental Status (Ref: No Kids)					
One Child				0.23 + (0.13)	
Two+ Children				0.11 (0.18)	

**Appendix 2J Continued. Logistic Random Effects of Job Expectations (Binary) on Underemployment (Binary), Coefficients**

Appendix Table 2J Continued. Logistic Random Effects of Job Expectations (Binary) on Underemployment (Binary), Coefficients

	Model 1	Model 2	Model 3	Model 4	Model 5
Current Student (Ref: No)					
Part Time				0.07 (0.13)	
Full Time				0.19 (0.15)	
Current Income (Ref: < \$25k)					
\$25,00 - < \$50,000				-0.73 ** (0.13)	
\$50,000 - <\$70,000				-1.11 ** (0.16)	
\$70,000 - < \$100,000				-0.79 ** (0.16)	
\$100,000+				-0.70 ** (0.17)	
Lagged Parental Status (Ref: No Kids)					
One Child					-0.12 (0.16)
Two+ Children					0.28 (0.21)
Lagged Student (Ref: No)					
Part Time					0.01 (0.13)
Full Time					-0.95 ** (0.12)
Lagged Income (Ref: < \$25k)					
\$25,00 - < \$50,000					0.07 (0.11)
\$50,000 - <\$70,000					-0.30 + (0.16)
\$70,000 - < \$100,000					-0.39 ** (0.15)
\$100,000+					-0.23 (0.18)
_cons	-1.86 ** (0.09)	-1.59 (9.36)	-5.98 (9.67)	2.74 (10.24)	-3.24 (9.90)
var(_cons[id])	4.95 ** (0.55)	0.00 + 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Wald Chi <sup>2</sup>	252.30	1138.82	1127.03	1112.45	1085.13
N Pearson-Year Observations	5,580	5,129	4,977	4,814	4,787
N Individuals	2,509	2,381	2,358	2,318	2,309

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests).

Analogous to Table 2.7. Source : Monitoring the Future (1976 - 2015).

## Appendix 2K. Logistic Regression of Demographics and Family Background on Cumulative Underemployment After College (Binary), Odds Ratios

Appendix Table 2K. Logistic Regression of Demographics and Family Background on Cumulative Underemployment After College (Binary), Odds Ratios

	Demographics & Family Background					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Women (Ref: Men)	0.84 ** (0.04)					
Race (Ref: White)						
Black	1.33 ** (0.13)					
Hispanic	1.18 (0.16)					
Asian	0.59 ** (0.08)					
Other	1.42 * (0.21)					
Base Year of Survey Admin.	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00
Gender x Race (Ref: White Men)						
White Women		0.84 ** (0.04)				0.83 ** (0.04)
Non-White Men		1.03 (0.11)				0.95 (0.11)
Non-White Women		0.95 (0.08)				0.88 (0.08)
Family Background (Ref: Lived with Both Parents)						
Mother Only			1.62 ** (0.10)			1.60 ** (0.10)
Father Only			1.46 * (0.21)			1.35 * (0.20)
Neither			1.27 (0.21)			1.28 (0.23)
Parents' Highest Level of Education (Ref: High School Diploma)						
Less than HS				0.79 (0.11)		0.79 (0.12)
Some College				1.12 (0.09)		1.07 (0.08)
College Degree				0.88 + (0.06)		0.86 * (0.06)
Graduate Degree				0.81 ** (0.06)		0.79 ** (0.06)
BY Region (Ref: Northeast)						
Midwest					1.02 (0.06)	0.98 (0.06)
South					1.00 (0.06)	0.97 (0.06)
West					1.20 * (0.09)	1.18 * (0.09)
_cons	0.04 (0.19)	0.05 (0.27)	0.14 (0.68)	0.00 (0.01)	0.05 (0.27)	0.00 (0.02)
chi <sup>2</sup>	44.01	14.51	62.77	28.56	8.56	104.37
N	9,794	9,794	9,930	9,842	9,943	9,690

Note: Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests). The dependent variable is a binary variable: respondents are coded as underemployed in less than 50% of observed waves after college or more than 50 percent of observed waves after college.

Source: Monitoring the Future (1976 - 2015).

**Appendix 2K Continued. Logistic Regression of Field of Study and Student Characteristics on Cumulative Underemployment After College (Binary), Odds Ratios**

Appendix Table 2K Continued. Logistic Regression of Field of Study and Student Characteristics on Cumulative Underemployment After College (Binary), Odds Ratios

	Field of Study / Student Characteristics		
	Model 7	Model 8	Model 9
Base Year of Survey Admin.	1.02 **	1.02 **	1.02 **
	0.00	(0.01)	(0.01)
Field of Study (Ref: Clerical/Vocational)			
Biology	0.74 (0.23)		0.57 + (0.19)
Business	1.69 + (0.50)		1.36 (0.43)
Education	0.53 * (0.16)		0.46 * (0.15)
Engineering	0.26 ** (0.10)		0.20 ** (0.08)
Humanities	1.21 (0.37)		1.10 (0.36)
Physical Sciences	0.71 (0.24)		0.54 + (0.19)
Social Sciences	0.94 (0.28)		0.79 (0.26)
Other	0.74 (0.22)		0.53 * (0.17)
GPA (Ref: B/80-89)			
D (69 or below)		0.72 (0.81)	2.10 (3.39)
C (70-79)		1.69 * (0.35)	1.90 ** (0.39)
A (90-100)		0.59 ** (0.05)	0.58 ** (0.06)
_cons	0.00 **	0.00 **	0.00 **
	0.00	0.00	0.00
chi <sup>2</sup>	103.96	58.03	149.12
N	2,916	2,771	2,728

*Notes:* Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests). The dependent variable is a binary variable: respondents are coded as underemployed in less than 50% of observed waves after college or more than 50 percent of observed waves after college. *Source:* Monitoring the Future (1976 - 2015).



**Appendix 2K Continued. Logistic Regression of Adult Relationship and Parental Status on Cumulative Underemployment After College (Binary), Odds Ratios**

Appendix Table 2K Continued. Logistic Regression of Adult Relationship and Parental Status on Cumulative Underemployment After College (Binary), Odds Ratios

	Adult Relationship & Parental Status			
	Model 10	Model 11	Model 12	Model 13
Base Year of Survey Admin.	1.00	1.00	1.00 +	1.00 +
	0.00	0.00	0.00	0.00
Single (Ref: Engaged/Married)	0.86 **	0.80 **	0.88 *	
	(0.04)	(0.04)	(0.05)	
Parental Status (Ref: No Kids)				
One Child		1.13	1.12	
		(0.09)	(0.09)	
Two+ Children		1.44 **	1.42 **	
		(0.15)	(0.15)	
Current Income (Ref: < \$25k)				
\$25,00 - < \$50,000			0.83 **	0.83 **
			(0.05)	(0.05)
\$50,000 - < \$70,000			0.52 **	0.52 **
			(0.04)	(0.04)
\$70,000 - < \$100,000			0.49 **	0.49 **
			(0.04)	(0.04)
\$100,000+			0.47 **	0.47 **
			(0.04)	(0.04)
Marital x Parental Status (Ref: Single x No Children)				
Engaged/Married x No Children				0.88 *
				(0.05)
Engaged/Married x 1 Child				0.94
				(0.08)
Engaged/Married x 2+ Children				1.32 **
				(0.13)
Single x 1 Child				1.55 *
				(0.33)
Single x 2+Children				0.39
				(0.23)
_cons	0.20	0.14	7635.24 +	5306.45 +
	(0.98)	(0.71)	(39174.16)	(27251.94)
chi <sup>2</sup>	10.82	24.46	176.00	192.11
N	9,915	9,906	9,647	9,647

*Notes:* Values in parentheses are robust standard errors. + < .10; \* < .05; \*\* < .01 (two-tailed tests). The dependent variable is a binary variable: respondents are coded as underemployed in less than 50% of observed waves after college or more than 50 percent of observed waves after college. *Source:* Monitoring the Future (1976 - 2015).

## **Chapter 3: Institutional Engagement and the College-to-Career Transition**

### **Abstract**

Higher education can be a tool for both social mobility and social reproduction, and the mechanisms that lead to disparate employment outcomes among college graduates are complex. One way the advantaged maximize their college degree is through optional experiential engagement—the activities that happen outside of the classroom. Drawing on 60 interviews with recent UMD graduates, I show that effectively maintained inequality manifests through engagement on campus, which then affects the college-to-career transition and post-graduation employment outcomes. Students who engage – by living in student housing or living learning communities, studying abroad, joining student organizations, and working in professional-track jobs – typically have smoother college-to-career transitions. By participating in these optional activities outside the classroom, they discover their interests, build social networks, and explore possible career pathways while developing tangible skills. Some students seeking college as a pathway to mobility were able to successfully leverage engagement on campus to obtain adequate employment by participating in highly-structured programs facilitated by institutional gatekeepers. However, institutional engagement was not enough to rectify pre-college inequalities in access to resources. My findings reinforce the importance of considering non coursework engagement as a critical lynchpin in the college-to-career transition.

## Introduction

*I looked at my resume, and it's just like you're not as special as you've hyped yourself up to be and it's a big slice of humble pie.* -Elena, who was very engaged on campus and then unemployed for several months after graduation.

Elena, a Hispanic woman who majored in the social sciences and graduated from University of Maryland (UMD) in 2016, describes a puzzle that researchers have long tried to understand about higher education: what is the role of college as a tool for social reproduction and social mobility? Elena was the first in her family to graduate from a four-year institution and was surprised, upon applying to jobs post-graduation, that everyone she was competing with had many of the same experiences and qualifications she had worked so hard to achieve. This realization was a “big slice of humble pie” for Elena, and she vocalizes a sentiment expressed by many other graduates.

When colleges are a tool for social reproduction, education serves as a gatekeeper, maintaining the status quo and allowing few people to “get ahead” in life. When college is a tool for social mobility, education facilitates people advancing their socioeconomic position. On one hand, college is a fundamental tool for social mobility. When examining earnings, occupational status, and other post-college outcomes, people with a college degree experience intergenerational mobility, obtaining more education and a more prestigious job than their parents (Hout 2012; Torche 2011). Scholars have consistently found that those from disadvantaged backgrounds (Brand and Xie 2010) and people in “middle range” of skills and abilities (Hout 2012:395) benefit the most from a college degree. Taken collectively,

there is compelling evidence that college continues to be a “great equalizer” (Hout 1988:19, 2012; Manzoni and Streib 2019; Pfeffer and Hertel 2015; Torche 2011).

On the other hand, elements of social origin – parents’ income, education level, and occupational status, for instance – are sticky and can affect outcomes after college. Students with a similar GPA, college major, and college selectivity had earnings differences 10 years after graduation explained by origin differences in their parents’ income (Witteveen and Attewell 2017a). Investments in education may matter more at the high school completion level, as opposed to higher education, for intergenerational economic mobility (Fiel 2020). Even among college graduates, students from high socioeconomic backgrounds – measured by total family income and parents’ education and occupations – earned more post-graduation than students from low socioeconomic backgrounds (Giani 2016). First generation students have lower wages 10 years after college than their peers, although Manzoni and Streib (2019) attribute this to labor market processes, such as differences in industries, occupations, and labor markets.

In an attempt to understand why a college degree is not equally beneficial to everyone, previous research has identified the importance of what happens experientially on campus. Socioeconomic background affects students’ approach to college—such as whether they end up on a party, professional, or mobility pathway (Armstrong and Hamilton 2013). Students from low socioeconomic backgrounds often do not have the same access to campus programs and resources as their more privileged peers (Damaske 2009; Hamilton, Roksa, and Nielsen 2018; Jack 2016; Stuber 2011). This extends beyond financial opportunity costs – such as an unpaid

internship – to students’ perceptions of the desirability and utility of participating in extracurricular activities (Stuber 2011). Engagement on campus is linked to positive outcomes like higher Grade Point Average (GPA), retention, and graduation (Kuh 2008). I advance this literature by considering two questions. First, how does experiential engagement—outside of the classroom—during college influence the college-to-career transition? Second, how does experiential engagement during college reduce or reinforce inequalities in post-graduation employment outcomes?

To answer these questions, I draw on 60 semi-structured interviews with recent UMD graduates. I identify four ways students acquire career-relevant cultural and social capital: living learning communities, student organizations, study abroad, and working in professional-track jobs. By participating in these programs and activities, students discover interests, build social networks, and explore possible career pathways. These activities seem like individual choices about whether, and how, to engage on campus, but in reality are facilitated at a structural level through invitation-only opportunities and optional participation. However, institutional engagement was not always enough to rectify pre-college inequalities in access to resources. Effectively maintained inequality manifests through engagement on campus, which then affects the college-to-career transition and post-graduation employment outcomes.

### **Access and Advantage**

The American higher education system simultaneously provides both the potential for social mobility (access) and social reproduction (advantage) (Carnevale, Schmidt, and Strohl 2020; Labaree 2017; Lucas 2001), which then shapes post-

college outcomes. The college-for-all narrative encourages young people to attain a bachelor's degree to bolster their labor market opportunities (Rosenbaum 2001). As institutions of higher education expanded to meet the growing enrollment potential from the college-for-all movement, the prestige of colleges and universities spread across a wide continuum (Labaree 2017). The American higher education system is a hierarchy, with prestigious research-focused universities at the top of the pyramid and regional teaching-focused colleges at the bottom (Labaree 2017).

As access to college has expanded through the proliferation of more colleges and universities, the advantaged find ways “to secure quantitatively similar but qualitatively better education” (Torche 2011:768). Through processes of horizontal stratification and effectively maintained inequality, increased access to college changes the distribution of people with a bachelor's degree without actually reducing inequality (Gerber and Cheung 2008; Lucas 2001; Torche 2011). As college-for-all became the norm, advantaged students find other ways to differentiate and signal to employers their elite status (Khan 2011; Rivera 2015). Students with robust family resources typically attend elite colleges (Carnevale, Schmidt, et al. 2020; Rivera 2015), and students with few resources – mostly those from low-income families and people of color – attend for-profit, low-quality colleges (McMillan Cottom 2017).

Institutional prestige affects post-graduation outcomes. The signal of a college degree implicitly relies on selection, since not everyone has a college degree, and more significantly, not everyone has the same status college degree. While the signal of a college degree may overall be positive, the heterogeneity in institutional quality

and prestige may lead to disparate outcomes among college graduates.<sup>12</sup> Since more workers now have a college degree, the economic value of the credential is diminished, pushing college graduates into lower-skilled jobs (Horowitz 2018). While the diminished signal of a degree may not be the sole mechanism driving college graduate underemployment rates, more people having the credential means that a bachelor's degree has become a "fuzzy signal" to employers (Kerckhoff 2003; Selingo 2016), which could explain why not all college graduates are able to obtain good jobs. At one end of the spectrum graduates from elite institutions typically get prestigious, high-paying jobs (Binder et al. 2016; Rivera 2015; Witteveen and Attewell 2017b), while non-selective institutions are more likely to reinforce existing inequality through earnings differences and job obtainment after graduation (Giani 2016; McMillan Cottom 2017). Because of how higher education is structured, a "college degree" includes a wide range of signals, which means other aspects of obtaining a degree – such as engagement on campus – may be used to differentiate graduates.

### **Outside-the-Classroom Engagement During College**

Effectively maintained inequality manifests through engagement outside the classroom during college, which then affects the college-to-career transition and post-graduation employment outcomes. Non-coursework engagement during college is important for building career-relevant social and cultural capital, which influences

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<sup>12</sup> Although as Carnevale and his co-authors point out, advantages in graduation outcomes may be driven by differences in institutional spending more than distinctions in institutional prestige (Carnevale, Schmidt, and Strohl 2020:175).

how students get funneled into post-graduation jobs (Hamilton et al. 2018; Rivera 2015; Roksa and Silver 2019). Social capital facilitates the flow of information, creates social ties who may exert influence (such as helping an individual get a job), provides social credentials which reflect an individual's access to social network resources, and reinforces identity and recognition (Lin 2001). While attending college, students meet new people, develop relationships with peers and faculty members, and access campus resources, which collectively builds their social capital (Chambliss and Takacs 2014). Cultural capital refers to one's "disposition" and includes both tactile knowledge (e.g., being aware of the latest trend) and also the embodiment of social space, referred to as habitus, such as knowing how to put others at ease, display appropriate excitement, and demonstrate appropriate conversational timing during a job interview (Bourdieu 1998; Rivera 2015). Students gain cultural capital during college indirectly (e.g., exposure to new peers from many different backgrounds) and directly through institutionalized norms, such as classroom policies and campus codes of conduct.

While non-coursework activities can build career-relevant cultural and social capital, not all students equally participate and benefit from these experiences. Many college social and cultural capital-building activities are designed for ideal type students who live on campus and have few outside responsibilities. Students who are parents, older students returning to school, or those living at home may have a harder time connecting with their peers and the campus resources that are designed to facilitate cultural and social capital. For example, low-income women of color who are attending a for-profit college and drive to an office building to attend a single



class are likely accruing little social and cultural capital through their college experience (McMillan Cottom 2017). Even public universities serving a wider range of students may enact institutional barriers that prevent students of color, and particularly Black men, from accessing career-relevant campus resources (Damaske 2009). To engage on campus, students need social resources to know how to participate; these social resources come from both pre-college information and current social networks who provide insider knowledge about good opportunities and what is important (Chambliss and Takacs 2014; Stuber 2011). Pre-existing class differences shape students' perceptions of the desirability, feasibility, and utility of engaging in campus activities (Stuber 2011).

In the best-case scenario of educational meritocracy, students from marginalized communities attend, and graduate from, elite colleges. However, there's evidence that students from low socioeconomic backgrounds who attend prestigious colleges struggle to acquire cultural capital on campus (Jack 2016) and embody "fit" to potential employers upon graduation (Rivera 2015). At highly selective private institutions, time use patterns indicate that students from high socioeconomic backgrounds spend more time each week engaging in campus social and academic life than their peers from low socioeconomic backgrounds (Martin 2012). Parents from high socioeconomic backgrounds leverage resources to ensure their children connect to appropriate capital-building activities during college and then successfully transition to careers or graduate school; this "college concierge" is not available to their working class peers (Hamilton et al. 2018; Roksa and Silver 2019). Therefore, pre-existing levels of social and cultural capital as students start college may be

another mechanism that facilitates inequality leading to differential outcomes among college graduates.

### **Institutional Motivations**

Higher education can be a pathway to intergenerational mobility by children successfully obtaining more education and a more prestigious job than their parents. But for college to be a successful mobility pathway, strong “organizational arrangements” must be in place to “compensate for a lack of financial support and parental guidance” (Armstrong and Hamilton 2013:219). Working class students are more likely to participate in capital-building activities at institutions where involvement is compulsory (Stuber 2011). Colleges recognize this, and have identified High Impact Practices (HIPs), such as living learning communities and study abroad, which are positively associated<sup>13</sup> with increased student learning, higher GPAs, and retention (Kuh 2008). HIPs have some positive effects on early career outcomes for graduates, although college major and institutional quality may be more important (Wolniak and Engberg 2019).

Institutions embraced HIPs partly because results suggested positive outcomes for low-income, minority, transfer, and first generation students—students who historically have lower achievement and retention outcomes than their more privileged counterparts (Finley and McNair 2013; Kuh 2008). Given that many graduates leave college with few gains in learning (Arum and Roksa 2011), many campuses allocated resources to connect students with HIPs. Institutions face the

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<sup>13</sup> Although one study across institutions showed that participation in HIPs had no effect on graduation rates (Johnson and Stage 2018).

tension of providing access while simultaneously convincing wealthy families who can pay full tuition the advantage their child will receive by attending the institution (Armstrong and Hamilton 2013; Carnevale, Schmidt, et al. 2020; Hamilton et al. 2018). Public universities are under pressure to provide enough access to satisfy their chartered education-as-a-public-good ethos while providing ways to replicate advantage for privileged students.

HIPs and other outside-the-classroom experiences are examples of opportunities that are technically open to all students but may be a mechanism for replicating inequality. While all students may benefit from HIPs, students who need the most support – such as transfer students and first generation students – face barriers to participating, such as limited time and money (Chambliss and Takacs 2014; Finley and McNair 2013). In this way, students may have quantitatively similar experiences (e.g., graduating from the same university with the same degree), while simultaneously having very different qualitative experiences on campus—this is a form of effectively maintained inequality.

In summary, students have the potential to acquire career-relevant cultural and social capital by engaging outside the classroom during college. However, not all students participate and equally benefit from these experiences (Carnevale, Schmidt, et al. 2020; Chambliss and Takacs 2014; Stuber 2011). I advance the literature about student engagement and college as a tool for social mobility and social reproduction by specifically examining how engagement as a student is tied to what happens *after* graduation during the college-to-career transition.

## Data and Methods

### *Interviews*

This chapter uses data from 60 semi-structured interviews with University of Maryland (UMD) graduates conducted between June and August 2019. All respondents graduated from UMD in 2016 or 2017.<sup>14</sup> At the time I talked with them, all respondents were two to three years post-graduation. This is a strategic timepoint to talk with graduates because people are far enough removed from graduation to see divergence in trajectories. Initial labor market uncertainty has settled two- to three-years after graduation, yet it's recent enough that people still remember their school-to-work transition. Interviewing people too far after an event may lead to post-hoc rationalization, masking structural patterns.

In this chapter, I examine post-graduation employment outcomes. While I have data on respondents' work and educational trajectories from college up until the day of our interview, for this study I focused on a "snapshot" of graduates' employment status four months after graduation. Because graduates' trajectories are fluid and changed over time, this provided a common metric to capture outcomes. Additionally, a four-month snapshot recognizes that some graduates spent the first few months after graduation job searching, traveling, or taking a break before embarking on their next endeavor. A four-month timepoint also recognizes that if a graduate is still un(der)employed four months after graduation, this is a more adverse outcome than being briefly un(der)employed for a month or two before obtaining a

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<sup>14</sup> Except for one respondent who graduated in 2018.

job. I coded graduates into six categories reflecting their status four months after graduating from UMD: *adequately employed*, working in a job that requires a college degree; *underemployed*, working in a job that does not require a college degree;<sup>15</sup> *unemployed*, not currently working and searching for work; *internship*, completing a paid or unpaid internship; *service*, participating in PeaceCorps or AmeriCorps, and *graduate school*; currently enrolled in a professional or graduate degree program. I emphasize underemployment because that was the original intention of the broader project from which this chapter derives.

I interviewed graduates from 11 majors which are classified into three groups. First, “engineering and computer science” includes computer science, bioengineering, materials science & engineering, and mechanical engineering. Second, “arts and humanities” encompasses English, communications, and history. Third, government & politics, sociology, anthropology, and criminology & criminal justice are clustered as “social sciences.” I used two strategies to refine which majors to include in this study. First, I conducted pre-interviews with six UMD Career Center staff. I asked Program Directors about typical career pathways for students within specific majors, industry hiring norms, department internship requirements, and their perceptions of job outcomes for graduates. Second, I obtained IRB approval to access UMD’s detailed First Destination Survey data. The First Destination Survey is part of an

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<sup>15</sup> Following other studies that conceptualize underemployment as overeducation, I classify whether a job requires a degree using the Department of Labor’s O\*NET database. The question that is typically used asks workers in each job, “If someone were being hired to perform this job, indicate the level of education that would be required.” Respondents select from twelve detailed education levels, ranging from less than a high school diploma to post-doctoral training. If more than 50 percent of the respondents working in that occupation indicate that at least a bachelor’s degree is necessary, the job is coded as a college job (Abel and Deitz 2016:6–7; Federal Reserve Bank of New York 2020).

initiative by the National Association of Colleges and Employers to track career outcomes for college graduates within six months of graduation.<sup>16</sup> I analyzed the restricted data to see employment rates by department, and specifically compared how underemployment rates by major at UMD differed from national Federal Reserve Bank data (see *Appendix 3A* for a summary).

To recruit interview participants, the UMD Alumni Association sent an email on my behalf to 2016 and 2017 graduates of the selected majors describing the study and inviting alumni to complete a short initial screening questionnaire. The survey screened for initial underemployment, collected basic demographic information, and asked respondents to provide contact information if they were willing to participate in an interview. Respondents reported their college major, graduation year, first two work-related experiences after graduation (both paid employment and experiences such as internships or graduate school), and contact information. Of the 5,419 graduates<sup>17</sup> who received the Alumni Association email, 324 graduates completed the screening survey.

I used a purposeful quota sampling technique (Gerson and Damaske 2021; Luker 2008) to ensure I recruited an adequate number of participants for key parameters of interest: experiencing underemployment since graduation, college major, gender, and race. Demographic descriptives of the interview sample are presented in *Table 3.1*. Because I oversampled graduates who had experienced un(der)employment, the interview sample may not be demographically representative

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<sup>16</sup> <http://www.naceweb.org/job-market/graduate-outcomes/first-destination/>

<sup>17</sup> Number is approximate because of estimation from Behavioral & Social Sciences (about 2,000 people). Exact numbers for the other majors are: 966 Arts & Humanities; 1,098 Engineering; and 1,355 Computer Science.

of all UMD graduates. *Table 3.1* provides a comparison of the sample characteristics with the UMD undergraduate student body in 2012-2013 and 2013-2014, when most of my respondents were starting college.

Table 3.1. Demographic Characteristics of UMD Interview Sample (N = 60) Compared to UMD Undergraduate Students in 2012-13 and 2013-14

	Interview Sample		UMD Undergraduates	
	N	Percent	2012-13	2013-14
<b>Gender</b>				
Men	25	42%	53%	53%
Women	35	58%	47%	47%
<b>Race</b>				
White	32	53%	55%	53%
Black	9	15%	12%	13%
Multiracial	8	13%	3%	4%
Latinx	6	10%	8%	9%
Asian/Pacific Islander	5	8%	15%	15%
<b>College Major</b>				
Behavioral & Social Sciences	27	45%	25%	23%
Arts & Humanities	17	28%	11%	11%
Engineering & Computer Science	16	27%	15%	16%
First Generation	12	20%	N/A	N/A
Transfer Student	19	32%	7%	7%
Graduate Degree at Time of Interview	6	10%	N/A	N/A
Student Loan Debt	23	38%	33%	33%
<b>Graduation Year</b>				
2016	30	50%	N/A	N/A
2017	29	48%	N/A	N/A
2018	1	2%	N/A	N/A

*Notes:* First generation is defined as neither parent having a bachelor's degree or higher. Interview participants had \$12,000 - \$150,000 in student loan debt; median amount was \$30,000. I compare the interview sample to all UMD undergraduates in 2012-2013 and 2013-2014 because those are the academic years when most of my respondents started college.

I conducted all 60 interviews, which ranged from 50 minutes to almost three hours. Most interviews were about 90 minutes. Interviews were conducted in person if the respondent lived in the D.C./Maryland/Virginia (DMV) area, and over the

phone if respondents did not live in the DMV area.<sup>18</sup> Respondents received \$30 in appreciation of their time. An incentive helps mitigate selection concerns by providing a financial motivation for participating in addition to those who may agree to participate for personal or altruistic reasons. I used a semi-structured interview guide (see *Appendix 3B*) to ask about pathways into college, work and internship experiences as students, employment and education trajectories since graduation, and plans for the future. The questions probed for understanding strategies and thought processes as decisions were made. All interviews were audio recorded and transcribed.

### *Analytic Strategy*

For analysis, I used RQDA, a qualitative package within R, to organize and code the transcripts (Ronggui 2016). I employed flexible coding to analyze the data, which involves applying three types of codes: index, analytic, and attributes (Deterding and Waters 2018). First, I indexed the transcripts using broad codes from my research questions and interview protocol, including applying codes for each question in the interview guide. Examples of index codes included college pathway, graduation plans, job search, and job expectations. For this chapter, I next limited my reading to relevant transcript text about college experiences, using index codes such as extra curriculars, mentoring, study abroad, and jobs during college. Examples of analytic codes that emerged during this reading were approaches to college, career exposure, job exploration, and social networks (see *Appendix 3C* for a full list of

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<sup>18</sup> Of the 60 interviews, 37 were conducted over the phone (62%) and 23 were conducted in person (38%).



interview codes). Respondent attributes are ignored at this stage to avoid confirmation bias about relationships between concepts (Deterding and Waters 2018). Finally, I applied analytic codes across respondent attributes for concept validity and to refine theoretical frameworks. Respondent attributes include un(der)employment status since graduation, college major, gender, race, first generation, and transfer student status. Through this process, I identified respondents who participated in few capital-building activities yet were adequately employed, and those who had participated in many capital-building activities yet were un(der)employed. I used these off-pattern cases to refine my findings. Applying flexible coding and conducting qualitative analysis in an exportable format meets emerging standards for describing qualitative analysis in more detail and making de-identified coded transcripts publicly available (Deterding and Waters 2018; Pepin 2018).<sup>19</sup>

As part of my analytic process, I built a detailed event history analysis for each respondent. I coded their employment status (adequately employed, underemployed, unemployed, internship, service, or graduate school) each month from the time of graduation until our interview, which ranged from 10 to 39 months. I added additional layers to depict whether these events were voluntary (e.g., had always intended to go to graduate school) or “Plan B” decisions (e.g., enrolled in a master’s program after being unable to obtain adequate employment). As the initial results presented in this chapter emerged, I went back to the transcripts and systematically coded for participation in internships, study abroad, living learning

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<sup>19</sup> I intended to make the de-identified coded transcripts from this project publicly available prior to publication. Unfortunately, the RQDA package in R is no longer supported so this is not possible (Ronggui 2016).

communities, student organizations, and professional-track work experiences. This process allowed me to see how many capital-building activities each respondent participated in, and then compare that to their post-graduation employment outcomes (see *Appendix 3D*).

### **Results: The Acquisition of Career-Relevant Social and Cultural Capital**

In the analysis that follows, I describe four ways college students acquire career-relevant cultural and social capital and identify two factors that shape access to this acquisition: institutional gatekeepers and opt-in involvement. As shown in *Table 3.2*, among the 60 graduates I interviewed, those who participated in living learning communities, study abroad, student organizations, and professional-track work experiences gained more career-relevant social and cultural capital during college and typically had better employment outcomes after graduation. By participating in these activities, students discover their interests, build social networks, and explore possible career pathways while developing tangible skills they can point to when applying for jobs. These activities seem like individual choices about whether, and how, to engage on campus, but in reality are facilitated at a structural level through invitation-only opportunities and optional participation.

Table 3.2. Graduates' Total Number of Capital-Building Activities During College by 4 Month Post-Graduation Outcome

Activities During College	Adequately Employed	Grad School	Service	Internship	Underemp.	Unemp.	Total
0	1 (25)	0 (0)	0 (0)	0 (0)	3 (75)	0 (0)	4
1	5 (28)	2 (11)	0 (0)	3 (17)	6 (33)	2 (11)	18
2	5 (35)	2 (15)	1 (7)	1 (7)	2 (15)	3 (21)	14
3	5 (42)	2 (16)	0 (0)	2 (16)	3 (25)	0 (0)	12
4	3 (38)	0 (0)	0 (0)	4 (50)	1 (12)	0 (0)	8
5	1 (25)	1 (25)	1 (25)	1 (25)	0 (0)	0 (0)	4
Total	20	7	2	11	15	5	60

*Note:* Values within parentheses are percentages. Percentages total across rows to show distribution within each social-cultural capital group. Activities include living in student housing, participating in a living learning community, studying abroad, involved in 1+ student organizations, and working in a professional-track job.

Especially for young people seeking intergenerational mobility through a college degree, gaining social and cultural capital during college is essential for their post-graduation employment outcomes. I find that capital-building experiences are often cumulative; students from more advantaged socioeconomic backgrounds are attuned to plugging in to campus activities that enhance their (pre)existing capital (Hamilton et al. 2018; Stuber 2011). However, students without this prior knowledge, who often have fewer financial resources, are focused on their coursework and graduating as quickly as possible (Martin 2012; Stuber 2011). With this prior knowledge, students from high socioeconomic households have the financial freedom to both pay for opportunities directly (e.g., study abroad) and withstand any opportunity costs (e.g., take a professional-work track job that pays less or complete an unpaid internship). Finally, those who participate in capital-building activities gain more opportunities via their initial involvement. Among students who arrived on campus with little social and cultural capital, several successfully participated in career-relevant capital building by participating in highly structured programs, often

instigated by an institutional gatekeeper. Without intervention from institutional actors, students with the same degree – who sat in the same classrooms – have acquired disparate levels of cultural and social capital by the time they graduate, which reinforces inequality in employment outcomes post-graduation.

In the sections that follow, I describe the role of institutional gatekeepers in facilitating access to opportunities and show how career-relevant capital building is often a cumulative process. Choices like whether to live on campus or commute from home have far-reaching consequences in students' ability to participate in capital-building activities. Finally, I illustrate how students acquire career-relevant cultural and social capital through study abroad, student organizations, and professional-track work experiences.

#### *Access to Opportunities via Institutional Gatekeepers*

Faculty and staff play a key role in providing access and connections to opportunities that students do not know about. Especially for students seeking college as a mobility pathway—those who are the first in their family to go to college and students from working class backgrounds—structured programs often were the way they acquired cultural and social capital. One case that illustrates this is that of Janae, a Black woman who was an Honors student and double-majored in the Social Sciences. Janae had little parental guidance about college and was responsible for financially putting herself through school. When I asked Janae to tell me about any work or internship experiences she had as a student, she told me that for her first three years on campus she was “focused on work” and internships seemed like a “waste of time” because they were not paid. Janae worked in one of the highest-paying student

jobs on campus: driving one of the shuttle buses. Junior year, Janae had an outstanding balance of \$2,000 on her student account and she applied for a scholarship. She then got a call from Dr. Jones—a faculty member who serves as the director of undergraduate studies in Janae’s major, who told her she received the scholarship and asked to meet with her. Janae recounts,

*So I came to her office and she said, "Oh well, I actually feel like you're really smart and I'm looking at your record and your grades and everything is great. But you don't seem to have any internship experience." 'Cause she looked at my resume that I'd submitted with the [scholarship] application. And she's like, "I really feel like this program called the [summer research program] would be perfect for you."*

The summer before her senior year, Janae participated in an intensive six-week research program that pairs students with faculty mentors, culminating in producing a research poster. Janae noted that going into the program, she “didn’t even really know what research was.” As she finished the summer research project, Dr. Jones encouraged Janae to apply to a new five-year BA/MA program in her major. Janae was reluctant to apply, unsure if she was ready for graduate school and hesitant about adding another year to her degree. Dr. Jones convinced her to apply, and Janae was accepted and then started taking graduate courses her senior year. Janae saw an advertisement for an internship at a campus research center fall of her senior year, and leveraging her summer research experience, decided to apply. Janae describes, “*I decided to attach my poster that I made with [summer research faculty mentor] to my application and then I got a call back the next day.*” Janae remembers the person who called her said, “*"Oh wow, I'm so interested, you're the only student that attached any kind of research experience to their application."*

Dr. Jones encouraged Janae to extend her internship in the spring semester by getting college credit for it. The research center where Janae interned offered her a graduate assistant position the following academic year while she completed her master's degree, and then hired her full-time when she graduated with her master's. While perhaps unusual to have an unpaid internship morph into a graduate assistantship and then a full-time job after graduation, Janae's experience illustrates the cumulative process that can transpire when students plug into structured capital-building activities. Janae's experience illustrates how one faculty or staff member can intervene in a very meaningful way. This aligns with other research that has found one or two people can make or break students' college experience (Chambliss and Takacs 2014).

However, interventions with students like Janae – students who did not have prior knowledge about engaging in career-relevant capital-building experiences – were rare in my interviews. Instead, faculty and staff often offered opportunities to top-tier students who were already doing well. For example, Olivia, an Asian woman majoring in the social sciences, describes how she got her first job as a student assistant:

*And I actually got that job, not because I was searching for it, but because my first semester on campus I took a Gen Ed class. ... I always sat in the first or second row of that class and [faculty member] actually spotted me and at some point emailed me and was like, "Hey, I noticed that you're a [honors student] and you did really well in my class. Do you want to come in and interview for a job here?" So I did it because I liked [faculty member], not because I was looking for a job, and I actually said yes because I liked him and not because I wanted a job.*

For students like Olivia, opportunities seemed to fall in their laps. Olivia went on to explain her other jobs and activities she participated in during her time at UMD.

In addition to her part-time job as a student assistant, Olivia was very involved in the honors research program, was on honors student council, and served as a student coordinator for the honors ambassador program. These cumulative activities over a student's college career can lead to other connections that have labor market consequences. Olivia told me how she landed one of her internships:

*I was speaking at a prospective students day my senior year and a prospective student's father came up to at the end of it and said, "I find your story really interesting. Do you want to come intern for me at my consulting firm?" I was like, "Oh, sure." And I started working there and he actually had a lot of connections in the international development field, so he started putting me in contact with people, which was really nice, but then just like his leads didn't end up panning out, but that was really helpful.*

Faculty and staff members are likely not intentionally hoarding opportunities and acting as gatekeepers. However, it's in their interest to have bright and effective student assistants, which may lead to eliminating students who are not as high performing.

In juxtaposition to students like Janae and Olivia, I talked with many young adults who wandered through college without a mentor or faculty/staff member who intervened and connected them to structured programming. I asked Roman, a multiracial man who majored in the social sciences, whether he did any internships as a student. He responded,

*I don't think so. I was very family focused and so on my weekends I'd be with my family. And then if I wasn't with my family, I was working or studying and that was one of my... one of my regrets is that I didn't have a true mentor. Like a professional mentor.*

While Roman successfully completed his coursework, that was not enough to embark on an upward career trajectory. Roman joined AmeriCorps after graduation but then floundered after completing his service. He worked for a landscaping company and

then completed an internship two years after graduation in an attempt to enter his desired career field. After a stint loading packages onto FedEx trucks, he finally landed a career-oriented position two and a half years after graduating. Later in our conversation, Roman described what not having a mentor meant for him compared to his friends:

*... if I could go back in time ... I wish I would've told myself to get like a real mentor because a lot of my friends that do have, you know, like some of them worked for Pepsi or like Johnson & Johnson or they're consulting at Deloitte or something. They had great mentors that would lead them to networking events or stuff like that. How to handle themselves professionally. And I think I've always been a polite person and I give a lot of respect to people, but it's still different from being trained on how to network professionally. And I never got those opportunities until after college.*

Graduates were aware of the discrepancy between their own experience and that of their peers who were able to build career-relevant cultural and social capital.

Makenzie, an Asian woman who majored in the social sciences, reflected on how she could have taken more advantage of skill-building and mentoring activities during college:

*...along the way I should have attended more career fairs and along the way I should have sought out those TA and research assistant positions. But no one in faculty - or even in administration - was pushing that on me or encouraging me that direction. And I also think that a huge part of it is having a mentor and the only person in undergrad that I could say was like a mentor was - I mean, I had a couple of professors who I really liked. I would try to develop a relationship with them, but they were really busy and doing their own research and I didn't really see where they were going above and beyond and maybe that's not their job. So, I also had a [college of social sciences] counselor who I saw frequently and kind of the same thing like... she wasn't really pushing me to do anything. She was just guiding me along, how to graduate on time, be successful in my classes. But she didn't take that extra step. And again, is that her job? Or is it -- it's kind of a question of who's job is that? Should it have been on my own onus, and did I make that mistake?*



Makenzie touches upon a key point of tension: who is responsible for facilitating career-relevant cultural and social capital building among students? Makenzie worked as a server at a restaurant in Washington, D.C. during college and was underemployed for almost two years after graduation. It's possible participation in study abroad, student organizations, a living learning community, or a professional-track job could have changed her trajectory by helping her build career-relevant cultural and social capital during college.

### *Student Housing and other Optional Choices*

Activities that build career-relevant cultural and social capital are not required for graduation. Because they are optional, students who do not participate—whether by conscious choice, because they are unaware of the opportunity, or because they cannot afford to—are at a disadvantage when they seek employment upon graduation. Living in student housing is illustrative of an optional choice that can result in diminished access to career-relevant capital building and adverse post-graduation employment outcomes. Most of the graduates I talked with lived in student housing during their time at UMD (N = 49, 82 percent). Of those who did not live on campus, nine students commuted their entire college careers and two lived on campus for one year and then moved back home. All but two of these 11 students (N = 9, 82 percent), were transfer students. Living in student housing – either on campus in residence halls or in privately-owned apartments adjacent to campus – appears to be an important proxy for access to capital-building activities. Of the 11 graduates who did not live in student housing, 64 percent (7 people) were underemployed after graduation, one person went to grad school, one pursued an internship, and only two

(18 percent) were adequately employed four months after graduation. When I talked with these graduates two-to-three years after graduation, all but one (91 percent) were still living at home.

There was a distinction between local students – who could have logistically lived at home if necessary but lived on campus – and those who commuted from their childhood home. Even though she grew up close to campus, Sadie, a White woman who majored in engineering/computer science, noted it was “actually never a question” or whether she would live on campus.

*I never wanted to live at home, but I have to admit it was so so nice being that close to home. I mean it's not like I was home every weekend or something, but yeah. It kind of kept me in my comfort zone but it was enough to keep me like away and out of the house.*

Students like Sadie were able to have the comforts of home nearby, sometimes returning to do laundry or enjoy a home-cooked meal, while receiving all the benefits of living on campus.

Those who lived in student housing benefitted from the social networks they built and proximity to campus events and programs. When I asked Helen, an Asian woman who majored in engineering/computer science and grew up not far from campus, where she lived as a student she answered:

*I lived on campus. I was in the [honors program], so I lived in the [dorm on campus] my first year and all of my floor turned out to be – my people on the floor, we all turned out to be good friends. We lived together the next three years, not all in one house but like, we stuck together.*

The decision to live on campus was often required by parents. Curtis, a White man who majored in the social sciences and grew up “down the road” from campus, told me,

*I was on campus. Yes. So that was a thing with my mom, because she... grew up in [town near UMD]. She grew up in this area. She was just like, "Yeah, there's no way you're living at home." And that was her requirement. If I was going to go local then I was going to live on campus, so I was on campus all the time.*

As evident in Curtis' response, living on campus was sometimes at the urge of parents. Many of whom were college-educated themselves, some parents knew the experiential benefits of living on campus and encouraged, or required, their children to do so.

Living on campus was not an option for all students. Many commuter students had a "get in, get out" approach to their college degree, often for financial reasons. Braden, a White man who majored in the social sciences, knew that he was on his own when it came to paying for college and was determined to not take out any student loans. To save money, he attended a local community college for two years and then transferred to UMD. Braden paid cash for his degree by working in facilities for a government building during the week and on a landscaping crew over the weekends. When I talked with him two years after graduation, I asked Braden whether internships were encouraged within his department,

*I definitely think it was. So, my big thing, especially as a commuter who was also working a lot of hours, I didn't necessary... I wasn't fully involved within school like outside of academics, you know what I mean? I think if I was part of more groups or something I definitely would have seen that a little bit more, but I definitely think [the department] let it be known that there was internships at you know, whatever agency.*

Braden was underemployed for about six months after graduation – continuing to work in the facilities job he had during undergrad – before landing a government job he was excited about. Braden's approach to college, partly because of financial resources, was very different from young people who were living on campus and

eager to soak up lots of career-relevant capital-building activities. When I asked Braden whether he would recommend a fictional younger sibling or cousin attend college, he said,

*At this point ... wherever you're going to go, for the most part, just wants to see that piece of paper. They just want to know you can put up with four years of crap or however long it is. So, I would definitely tell them to go [to college] and do it because at some point, you just got to play a game, even if it's their game. So, I would say definitely go.*

While Braden notes he would encourage a younger sibling or cousin to obtain a college degree, his reference to “four years of crap” suggests a very different approach to college than students who were excited to engage in many capital-building activities. By focusing on the minimal coursework requirements to graduate, students miss out on the optional activities that are instrumental to building career-relevant social and cultural capital.

In addition to not being physically present to participate in student organization meetings and other campus activities, students who worked long-hours off campus were often not able to take advantage of career planning and job search resources. During her time as a student, Tania, a Hispanic woman who majored in the social sciences, worked full-time as an Administrative Aide for a local county council member. She commuted to campus from her parent’s home in a nearby D.C. suburb. When I talked with Tania three years after she graduated, she was still living at home. She reflected,

*I just feel like I dropped the ball because ... like, with the career fair, I feel like I never went to a career fair.*

*Brittany: Did you know about it?*

*Tania: I did but because whether – it was either I had class, or I was at work. I guess I never really made the effort to go.*

While the Administrative Aide position continued initially after graduation, Tania lost her job when the council member was term limited out, and then was unemployed for five months.

Financial constraints often limited the opportunities available to students. Jenna, a White woman who majored in the social sciences, told me about her decision to graduate a semester early: *“I made the decision probably spring of 2016 to graduate early. I could've done that or study abroad and I was not in a financial position just to do that [study abroad].”* Compare Jenna to the experience of Sabrina, a White woman who also majored in the social sciences,

*“Basically, I could've graduated a year early, but instead I studied abroad at [university in Europe] for a whole year. ... So there, I could take all archaeology courses and it was more intense. .... So basically, everything would transfer as electives. But I mean that was fine for me because I had enough time to take all the stuff I needed to in the three other years [on campus at UMD]. So, it was a great experience.”*

Both Sabrina and Jenna graduated without student loans and had family financial support to pay for their degree. Yet while they look similar on paper, there are important experiential differences in families who can support students to participate in activities like study abroad versus those who are sacrificing to cover the cost for a standard semester.

Terrence, a Black man who majored in the social sciences, only knew what he was missing because he had started at another four-year institution where he lived on campus. When he transferred to UMD, he was commuting from Baltimore, Maryland, which was a,

*... good drive, you know, leave my house 7:30- get here in time for 9 o'clock classes, and then be here roughly for 12 hours a day between my classes, between doing homework in the library, going to the gym, seeing the*

*occasional friend.*

Terrance described how being both a transfer student and a commuter logistically affected his ability to engage on campus:

*I did some activities, but I found that it's- it's more difficult to be engaged in things here, you know, one as a transfer student. A lot of time those friendship groups get formed at the very beginning, and also in terms of being a commuter. "Oh, we're doing this at this time. [It's not like] Okay, I'll just catch the shuttle." I've got to decide if I'm going to stay around here. I don't want to go home and then come back.*

Terrence eventually moved to an off-campus apartment, and I asked how that shifted his campus involvement.

*... that definitely made it easier. I don't think I ever fully got immersed because- you know, I wasn't really ever in the dormitories, and so [meeting people] was just in class or around- a friend would invite me to the occasional church group, so I'd do that or I'd do some other activity, but I don't think I ever fully caught on- it wasn't because they didn't have good opportunities, because they did, but I think, it was always kind of that disconnect, like, "Oh, I wasn't here when all these things were kind of organically starting."*

Terrence's experience suggests that even transfer students who attempted to immerse themselves were not always able to catch up to relationships and experiences that emerged "organically" freshman year. Financial resources affected who lived in student housing, and proximity to campus played an important role in the ability to participate in capital-building activities. Because activities like studying abroad or participating in student organizations are optional, students with limited financial resources choose not to participate in lieu of working. Students who needed to graduate as quickly as possible were not able to participate in activities like a semester abroad that may have delayed their ability to complete required coursework.

### *Replication of Advantage through Living Learning Programs*

A subgroup of students who lived in student housing gained career-relevant social and cultural capital by participating in Living Learning Communities (LLC). LLC provide structured opportunities for students that integrate learning across courses, exploring a common topic or subject area, and residential life (Sandeen 2012). For instance, a group of students may all live on the same dorm floor, enroll in specific courses together grouped around a big question or theme, and participate in other programming related to that topic. LLC expose students to career exploration and build social networks. About 30 percent (n = 17) of the young adults I talked with participated in an LLC as a student.

Erica, a Hispanic woman who majored in arts & humanities, described the LLC she was in freshman and sophomore year which embedded community service learning projects, common coursework, and culminates in a required internship for course-credit in the second semester of sophomore year:

*I believe my first internship that I did... It was actually on campus – luckily – because I couldn't have imagined commuting that semester to D.C. or something like that. I also didn't have a car on campus, so I worked at the Office of Admissions and I was a marketing intern for them, so I helped with their social media accounts and I also helped out for admitted students day and things like that.*

This highly structured program provides students like Erica, who otherwise would likely not have completed an internship sophomore year, access to social and cultural-capital building activities like quality internships. Most LLC have required programming, which socializes students from the very beginning of their college career to engage in activities outside of coursework—setting them up to build career-relevant socio-cultural capital.

The LLC Erica participated in is staffed by a full time Director, Associate Director, and Coordinator, with additional support from faculty who teach the required courses. Because of the resources dedicated to this program, staff have the capacity to coordinate robust service learning opportunities for students and place them in meaningful internship opportunities. Yet this LLC is an invitation-only program that targets “talented incoming freshmen” whose applications indicate an interest in service learning and leadership development. While there is an option to self-nominate on the website, it would require high school seniors knowing about the program and having the wherewithal to nominate themselves spring of their senior year in high school. By recruiting top-tier students into this LLC, which then provides structured programming that builds career-relevant cultural and social capital, the university replicates advantage.

Outside of structured programming, students obtain social and cultural capital through the social networks and career exposure that LLC indirectly facilitate. Imani, an engineering/computer science major who was born in India and moved to the U.S. as an adolescent, participated in a science-oriented LLC that attracted many pre-med students. She described the social network this created among the 65 students who “are all sort of interested in the same thing”:

*We kind of feed off of each other too in terms of, “this is what I’m doing. This is what we can do together. This is how we’re going to get to med school.” And I came into college with, surrounded by, this group of people. I went to [medical experience abroad] with some of my friends that I made in this group.*

In addition to building a social network with other high-achieving students interested in medical school, the LLC served as a catalyst for exploring her career interests.



Imani told me that the short-term clinical experience she had abroad confirmed her interest in global health and going to medical school:

*It's honestly kind of voluntourism but I think that was actually a hugely helpful opportunity for me to identify, "this is what I want to do."*

Some LLC explicitly built in career-exposure programming. Olivia, the Asian woman majoring in the social sciences who we met earlier, told me,

*... at some points they had brought in either Maryland grads or people working in the area in certain fields - like international development for instance - so they'd have panels. And those were useful 'cause it was nice to talk to people. The [honors program] also had an annual panel as well, where scholarship alums would come back. And these were people that would be 20, 30 years out of college come back and talk about their work. It was always nice to hear people who are in the field talking about their experience .... That was very helpful because it was really hard to see how people got certain places.*

Exposures to career pathways provided opportunities for students to understand the steps involved in obtaining a high-level position or successfully entering a field.

Repeated exposure to successful alumni and other campus visitors built career-relevant cultural and social capital for students.

### *Study Abroad: Exploring Interests and Developing Passions*

Study abroad is a quintessential college experience that is often depicted as a fun “character building” adventure for high-income students. I found study abroad played a critical role for students – especially those coming from marginalized backgrounds – to discover their interests. About a quarter of the graduates (N = 16) I talked with studied abroad as a student. Elena, a Hispanic woman who was the first in her family to go to college, started at UMD undecided about her major. She took some economics courses freshman year and thought, “this is kind of interesting.” She

was not excelling in the courses – she was getting Cs – but she was eager to “get out of undecided.” When Elena went to her advisor to officially declare economics as a major, she recounted,

*He said, “Great, Cs get degrees.” He literally said that to me. And to this day I’m like, you could have said something else at that point in time [prompting whether this was the best choice] and he was like, “Sounds good. I’ll sign you up.”*

However, as she continued in her economics coursework, Elena found she did not enjoy the content. Elena participated in a short-term faculty-led study abroad trip over the winter semester of her junior year, and she discovered other interests that resulted in her changing majors:

*I went to Argentina and I took a government and politics class and I was like, “yeah this is more what I want to do.” I think I took a couple of government classes before because it just fits nicely with econ and government. And then I was like, no, I want to be doing this stuff. I might as well just be enjoying my time and reading things I am interested in and learning about how politics or government works ... So, that’s where I made that transition.*

Similarly, Jillian, a White woman who majored in the social sciences, described a short-term study abroad trip to Morocco she did over spring break her sophomore year. She reflects on how that resulted in a minor in international development and ultimately her decision to join the Peace Corps after graduation.

*And there [in Morocco] we did like international development democratization stuff and I think at that point is when I really decided to make kind of a turn towards international development. I think that was probably the spark... The Morocco thing is what kind of got me on that path towards international development. So, I declared the minor, went abroad, interned at the non-profit [in London junior year], came back, and then senior year I got really serious about international development stuff.*

The “spark” Jillian experienced in Morocco resulted in her taking additional steps, including declaring a minor and participating in an additional study abroad experience, to pursue that pathway.

Short-term study abroad trips over winter or spring break seem minor when considering the four or more years students spend earning their college degree. However, these experiences – even if short in duration – are illuminating for students’ exploration of their interests. They build cultural capital by exposing students to other areas of study and career fields. Zoe, a White woman majoring in arts & humanities who transferred to UMD her sophomore year, explained how she developed an interest in communications while writing for the education abroad department during her study abroad experience:

*I was writing for the website, I sent in content, they loved it. It was a blast for me. The people that worked there were so supportive and creative in helping me be creative. That was the perfect scenario. I think that may have been how I landed in communications a little bit. Because now that I'm describing it, that's kind of like travel writing. I wrote a series when I was over there about Scotland, it was very cool. But once I applied myself to the role and realized what it could be, it was like, “well, this could be everywhere. I could do this for any company, and I like that.”*

Study abroad builds cultural capital in general by exposing students to new norms and worldviews, and it builds career-relevant cultural capital by sparking passions for students that resulted in adding minors, changing majors, and pursuing new career pathways.

#### *Student Organizations as a Tool for Job Networking and Job Exploration*

Student organizations may seem superfluous to academic work in the classroom, but they built key social networks that helped students find jobs after

graduation and cultivated cultural capital by identifying areas of interest. My interview guide did not explicitly ask about involvement in student organizations, but it came up organically in one-third (N = 20) of my conversations. Noah, a White man who majored in engineering, explained the role of clubs and fraternities in obtaining jobs after graduation:

*A lot of people got jobs through their club. This is actually the biggest thing. A lot of people got jobs through like various engineering clubs. I don't know anyone who was in any sort of engineering club who did not get a job out of college.*

Noah was not involved in any of these groups and was underemployed for more than a year after graduation.

Especially in disciplines like engineering, student organizations served as vital networks to not only hear about job openings, but also obtain post-graduation jobs.

Marco, a Hispanic man who was in one of these clubs, described how he landed his post-college job fall of his senior year:

*I remember at the career fair fall of my senior year – I was in an engineering fraternity at Maryland – and I went to go say hi to one of the guys who is two years older than me. He was a recruiter for [global consulting firm]. I just went to say hi to him and talk to him for a little bit. At the end of it I was like, “Hey, am I supposed to give you my resume or something?” He goes, direct quote, “Is there a non-zero percent chance that you will work here?” And I go, “yeah I have no idea what I'm going to do, might as well.” He goes, “Sure, what the hell man, give me your resume.” So, I give it to him and then go through a phone screening and all this stuff, and the next thing I know I have an offer from them. It was a good offer. I was like, well I don't know what I want to do, it's October of my senior year, I have this job offer in [D.C. suburb] that's paying really well.*

Marco accepted the position and after graduation began working with a starting salary of \$70,000. The experience of students being unsure of what they wanted to do after

graduation and thus getting channeled into careers like consulting aligns with what Rivera (2015) found in her study of elite students.

In addition to direct connections to jobs like Marco experienced, participating in student organizations confirmed students' interests. Elena, who we met earlier, attributes her involvement in a student organization as an additional spark that led to her changing majors from economics to government and politics:

*That's when I started [wanting to work in politics]. ... I got involved with the residence hall association, and it was really cool to do legislation and like all of this fun politicky stuff on campus.*

Social and cultural capital acquisition also happens through understanding the steps needed to access a desired career path. Imani, the engineering/computer science major described previously, picked up on a different approach to college and the option of taking a gap year before medical school through interactions with others in the pre-health fraternity she joined sophomore year:

*The conversations that I had was actually why I decided to take the gap year [between undergrad and starting med school] instead of pushing for it and trying to fit everything into my undergrad.*

*Brittany: And what about those conversations made you consider the gap year?*

*Imani: A lot of the people that I met. I think, when I started joining I kind of thought, "we have a goal, we're going to get everything that we can, get our ducks in a row in these four years to meet that eventual goal. That was what I thought undergrad was for and then I met these people who are kind of completely redefining their lives. ... they were just sort of so comfortable in the ambiguity of their decisions. And that was such a novel feeling for me because that's not a concept that I was raised under. ... I think that's when I realized that I should enjoy undergrad a little bit more.*

Imani recounted how she had initially been treating undergrad "like a checklist" to meet medical school admission requirements. Through exposure to others with different approaches to college in her fraternity, she realized she could "stop and take

a breath” and “do things that are unnecessary” for medicine. This more expansive view of soaking up a liberal education resulted in Imani adding what she described as an “eclectic” minor in Religious Studies. When I talked with her shortly after she started her third year of med school, several years after she finished undergrad, she reflected,

*I guess it's easier to say in hindsight because I made it into med school and I made it into what I was aiming for, but I sort of really wish I had studied something completely eclectic and I wish I had not stuck to things because I thought it would look on my resume.*

For many graduates I talked with, student organizations and other campus activities were the most valuable aspects of their college degree. Zoe, a White woman who majored in English and transferred to UMD her sophomore year, articulated,

*What I love about Maryland is that I just got to get my hands dirty in so many different kinds of random things to figure out what I felt like doing. Like that's why I wanted to go to a big school.*

Zoe was passionate about anti-human trafficking, and the first four-year institution she attended did not have any organizations or ways to engage in that interest. She told me about her excitement when she arrived at UMD and found that, “*there was an anti-human trafficking student-run club and I was the president of that by the end of my time at Maryland.*” Zoe used student organizations to explore her interests. When we talked three years after graduation, she reflected,

*...I joined the editorial board of [student-run literary journal], and that's where I explored if I wanted to be more of like a “writer writer” in terms of essays, and I got to be exposed to real creative writers and what that looks like, and if I fit into them. I tried on so many different things. That was so uniquely Maryland. I feel like everyone was sort of doing that in their own way, which is just so cool. So yeah, Maryland experiences, were just like, whatever you wanted to make it.*

Zoe took advantage of what she thinks of as “uniquely Maryland” experiences that bolstered her “generic” English degree. Yet she also aptly names that the experiences were “whatever you wanted to make it,” meaning that the onus is on students to engage with these opportunities. Zoe went on to reflect,

*I feel like [my time at UMD] shaped me as a person. It helped me figure out what I did want to do and didn't want to do. Invaluable, my time at Maryland for sure. Like the degree is one thing, the schooling I could do anywhere in a way. I mean, the courses were great, but English - I knew that I was getting an English degree that was like an English degree period. But what Maryland let you do is turn that into so much more -- so cliché. But in that way, my unique experience at Maryland beyond paid off, because I just feel like I wouldn't be here, in the same position, if I didn't go to Maryland.*

Zoe’s participation with various student groups and campus activities allowed her to identify what she enjoyed and “shaped [her] as a person,” which are examples of cultural capital. She perceives these capital-building activities as providing the value of her degree, not the English coursework content itself.

Students gained tangible career-relevant skills from their extra-curricular involvement. When I asked Leigh, a White woman who majored in engineering/computer science about the most valuable aspect of her college degree, she said,

*One of the best things Maryland taught me - not even academically - was how to communicate in groups and how to be a part of an organization or a part of a group and work with others. I think Maryland did a wonderful job of that.*

She went onto say that these skills developed from experiences “90 percent outside of the classroom.” Students are using these experiences to shape them into “well rounded” job applicants with the soft skills for which employers are often clamoring (Selingo 2016).

Leigh, who double-majored in two challenging disciplines, was very involved on campus beyond completing her own coursework:

*I did club tennis. I was very involved in that. I traveled for a ton of the tournaments, competed. I was the vice president of the club at some point during college too for a year. I did ODK -- the leadership honor society. I got into that and then I was like president of that club. What else did I do? I was a TA for [a lab course]. I was a TA for [another course] in the computer science department. I was a TA for multiple courses through the [honors] program.*

Leigh and other high-achieving students were involved in multiple experiences and activities, which illustrates the cumulative nature of participating in career-relevant capital building activities. Jason, a White man who majored in the arts & humanities, told me about his first study abroad experience and then outlined his other co-curricular activities as a student:

*That fall, I came back and through the whole time at school, all four years, I worked for [campus events], which puts on the big campus concerts and stuff. ... Sophomore year, I interned on the Hill. And then my sophomore summer, I think I went home and worked for a local concert venue and then also worked as an intern with the state police [in home state]. Junior year I started working for the athletic department and then the next semester I studied abroad in Istanbul and stayed there for the summer also. ... And then senior year, I worked for the education abroad office as a peer mentor.*

Zoe, Leigh, and Jason are all examples of students who were able to fully invest in their college experience, acquiring career-relevant cultural and social capital throughout their experiences that launched them successfully into their post-graduation employment. Especially for students without financial pressure, campus organizations and other engagement opportunities allowed them to explore interests, even if those interests did not have a direct tangible career pathway.

Sabrina, a White woman who majored in the social sciences, told me about how she did anything she could as a student to explore her interests in archeology.



*I was volunteering in the [anthropology] lab. I would do cataloging for artifacts, which is the best way to learn about your different pottery, your ceramic types, and you need to know like all these different nails and how they're manufactured and the dates associated with that.*

Sabrina went on to pursue her archeology interests internationally:

*I went both of those years [to a field experience abroad]. And then the next, the second summer at the end I was invited back personally by the head of that dig. Me and one other American, we were invited back. And so I went back that year and then I studied abroad. So, I stayed until that summer. I went four years total. And then over there, I also volunteered in archeology labs. ... nothing that paid me, but just as much archaeology stuff as I could do.*

Most of Sabrina's experiences were volunteer – she did not get paid or even course credit most of the time – but they allowed her to access robust opportunities on campus and abroad. At the time we talked three years after graduation, Sabrina was struggling financially but was working in her desired field and was thinking about returning to graduate school to further pursue a career in archeology.

These robust engagement experiences contrast to students who were only coming to campus to attend class and then immediately leaving. Students, especially those from working-class backgrounds or those who may be the first in their family to go to college, often do not realize until *after* graduation the importance of non-coursework experiences. Shayla, who identified as Multiracial and majored in Computer Science, was a first- generation college student. She reflected,

*It [post-graduation job search] was very stressful and also I felt like the degree did not matter [in] the computer science world. I kept getting a whole bunch of articles and figuring out why I'm not getting a job because most of them are just looking for things that you did on your own and side projects. It made me feel like my degree was kind of worthless, or a waste of time. So, I kind of was second guessing myself a little bit. Like why go through four years of this – or, for me five years - when all they really wanted was, "Well, what did you do besides school?" That was very discouraging.*

Shayla was underemployed for seven months after graduation, working the same job she had during college, and then accepted a Computer Science-related internship. At the end of the three-month internship she was offered a full-time position, however it is dependent on grant funding so is not secure long-term. Shayla earns \$40,000 annually in her position; this is significantly lower than the starting salary of other Computer Science graduates I interviewed. While Shayla eventually obtained adequate employment, her low salary and lack of job security suggest not engaging outside of her coursework had employment outcomes after graduation.

### *Professional Track Work Experiences*

Almost all graduates I talked with (87 percent, N = 52) worked at least a part-time job during their time as a student at UMD. However, there was a discrepancy between students who worked in jobs that provided career-relevant cultural and social capital and those that provided income but did not build this type of capital. Of the 52 people who worked as a student, just over half (52 percent, n = 27) worked in professional-track jobs that cultivated building cultural and social capital that would be useful in “white collar” jobs. As shown in *Table 3.3*, the 27 students who worked in professional-track jobs were disproportionately likely to be students from higher socioeconomic backgrounds who had college-educated parents and started at UMD as freshmen. Students working in non-professional track jobs were more likely to be the first in their family to go to college and transfer students.

Table 3.3. College Professional-Track Work Experiences by Transfer and First Generation Student Status

	Non-Professional Track	Professional Track	Total
Transfer Student Only	6 (24)	5 (19)	11
First Generation Student Only	1 (4)	4 (15)	5
Both Transfer & First Gen Student	5 (20)	1 (4)	6
Not First Gen nor Transfer Student	13 (52)	17 (63)	30
Total	25 (100)	27 (100)	52

*Notes:* Values within parentheses are percentages. The subsample is comprised of the 52 UMD graduates who worked during college out of the total interview sample of 60 graduates.

These professional-track jobs operated as white collar-in-training positions that provided students with supervisors and mentors who could serve as future references, signaled on their resume that they knew how to work in an office setting, and exposed students to new career pathways. These experiences contrast to the other half of students, who were working as nannies, bartenders, servers, GrubHub drivers, and custodians. While these positions in the service sector and gig economy provided income, they typically did not build career-relevant cultural and social capital. Many of the students who had jobs that put them on a professional white collar-trajectory were working in offices and departments on campus. In addition to building social networks by connecting students with supervisors and mentors in professional fields, on campus jobs occasionally led to positions after graduation.

Of the 60 graduates I talked with, three (five percent) were working in UMD-affiliated positions that were sparked by professional-track positions they had as students. Hope, a White woman who majored in the arts & humanities, worked as a student assistant in an academic department on campus during her four years at UMD.

*... it was a really good segue into my career now because I learned a lot from that... office administration stuff that I do every day now, and that I did at my previous job as well. I TA'd for the same department even though that wasn't my major, I just established really strong connections with the [academic] department... and with the professor that I was TAing for and so I always felt like that was pretty inspiring. At the time, I was really thinking about trying to become a professor one day because I just thought oh, this woman is so cool, I love TAing for her, this is – if this is what it's like, then this is what I want to do.*

When I talked with Hope two years after she had graduated, she had not returned to graduate school, but her current position was in the same academic department she connected with as a student. Hope's experience in the department sparked her interest in working in higher education administration or advising. After graduation, she worked as a program coordinator at another university for about a year and was casually beginning to look for another job. Hope texted her former UMD supervisor, *"I was like just let me know if anything opens up and then maybe a few months later, he told me about the position I have now."* At the time of our interview, Hope had a job she enjoyed, working as a Faculty Specialist doing research administration support for a lab in the department she originally worked in as a student.

As illustrated by Hope, students' jobs are important for confirming or dispelling career interests. Leigh, the White woman we met earlier who majored in engineering/computer science, described a summer job she had with a start-up company the summer after her freshman year.

*I helped create iPad applications for educational purposes and schools in Africa. So that was my first venture into creating applications and using programming for that and it was a really small startup. Four people total. So, it was a cool, super niche experience. I did that for the entire summer, but realized I didn't love it. It just wasn't motivating to me, but it was a good job.*

Leigh was able to learn from this experience that she did not particularly enjoy programming to create apps, which then informed her subsequent career-exploration opportunities. Sophomore year, she started volunteering at a nonprofit health clinic,

*And that was actually when I figured out that I wanted to do medicine. That clinical experience is like the changing point for me and then I think it was that second or third year that I started becoming a medical scribe in an emergency department and I realized after that non-profit clinic that I wanted significantly more clinical experience just to confirm that I'm veering away from the PhD route and to the medical route.*

Summer jobs and other part-time work experiences are low-risk ways for students to explore interests while building their social capital through professional social networks. But not all jobs provide the capital-building activities that Hope and Leigh experienced. Especially pronounced among graduates who were underemployed after graduation, students like Makenzie, an Asian woman who majored in the social sciences, told me, “*So since the summer before I started school, I started working in a restaurant. ... I was a host in a restaurant in D.C. and I really loved that, and then I did that really throughout college.*”

Similarly, when I asked Bridget, a Black woman who majored in the social sciences whether she had any internships or jobs as a student, she said, “*I didn't do any internships but I did work a lot, and I worked in retail to make money.*” Both Makenzie and Bridget continued working their service-sector jobs after graduation.

These jobs provided income but did not build social networks or cultural capital that would be useful in obtaining employment outside of the restaurant and retail industry. Because most students work, it's not immediately clear that these service-sector jobs do not provide the same benefits as the professional-track jobs

some of their peers have. Kendall, a multiracial woman who also majored in the social sciences, explained, “*So, I worked the entire time that I was in school. I was a hostess downtown in D.C. at a restaurant.*” Jobs like nannying and working in the restaurant industry were often more lucrative than the minimum-wage-paying student assistant jobs on campus. However, while those in professional-track jobs earned less, they were gaining cultural and social capital that they could leverage in securing adequate employment after graduation. Because students from higher socioeconomic backgrounds were more likely to work in professional-track jobs during college, this magnified preexisting inequalities that contributed to disparities in post-college employment outcomes.

## **Discussion**

Recognizing that college can be a tool for both social mobility and social reproduction, it’s important to understand the underlying mechanisms that can result in students with the same degree from the same institution having very different employment outcomes after graduation. In this chapter, I examined two questions. First, how does experiential engagement—outside of the classroom—during college influence the college-to-career transition? Second, how does experiential engagement during college reduce or reinforce inequalities in post-graduation employment outcomes?

Drawing on 60 interviews with recent UMD graduates, I show that effectively maintained inequality manifests through engagement on campus, which then influences the college-to-career transition and post-graduation employment outcomes. Students from higher socioeconomic backgrounds are attuned to plugging in to

campus activities that enhance their preexisting capital (Hamilton et al. 2018; Stuber 2011), they can afford the direct and indirect costs of participation, and then engagement is often cumulative, leading to more advantage. Graduates who participated in living learning communities, study abroad, student organizations, and professional-track work experiences gained more career-relevant social and cultural capital during college and typically had better employment outcomes after graduation. Institutional gatekeepers play a pivotal role in shepherding students into structured programming that can build career-relevant cultural and social capital. My results aligns with previous research finding structured programs with opportunities for intervention are beneficial for achievement, retention, and post-graduation outcomes (Armstrong and Hamilton 2013; Ovink and Veazey 2011; Stuber 2011).

There is a robust scholarly literature that examines how college can be an avenue leading to social mobility and social reproduction. My findings reinforce the importance of considering non coursework engagement as a critical lynchpin in the college-to-career transition. Effectively maintained inequality suggests that the advantaged will find ways “to secure quantitatively similar but qualitatively better education” (Torche 2011:768). I show how processes of effectively maintained inequality operate as students make decisions about whether, and how, to participate on campus. These seemingly optional choices are facilitated at a structural level by institutions who are under pressure to provide both access to education *and* advantaged opportunities for wealthy families. None of the capital-building activities I identified are required for graduation. Because they are optional, many students graduate from college without these experiences—having only gone to class. Students

from higher socioeconomic backgrounds with preexisting resources use engagement on campus as way to gain career-relevant cultural and social capital, which they can leverage to obtain a good job after graduation.

Many institutions have embraced HIPs because of their potential to engage students in meaningful ways that contribute to higher GPAs and retention. While these are laudable outcomes, the potential unintended consequence is that they are replicating inequality. Because they are not required, students who are aware of the importance of these opportunities and can afford to opt-in acquire career-relevant cultural and social capital while their peers do not. Institutions should consider integrating HIPs into the curriculum. By making engagement opportunities required, effectively maintained inequality would be reduced because all students would be participating. Future research would then need to explore whether required institutional engagement that enhances career-relevant cultural and social capital can rectify pre-existing inequalities.

Several limitations contextualize these findings. First, it's important to note that because I only interviewed UMD graduates, these themes may not be generalizable to all recent college graduates. Results may differ in various parts of the country or at institutions which are more or less selective than UMD. The graduates I talked with described their college experiences retroactively; it's possible talking with current college students about their involvement on campus may lead to different themes. I chose a four-month cutoff point to assess graduates' employment outcomes. This cutoff is somewhat arbitrary, and in future research I could present results using a 12 or 18 month cutoff point. The challenge is that young peoples' employment



trajectories after graduation are not linear. There are graduates who are coded as adequately employed when using a four-month cutoff, who later were fired or lost their job and would be coded as unemployed or underemployed if I used a 12 or 18 month cutoff. Hiring timelines differ by industry. Additional analyses could present results from a later timepoint as a robustness check to see how structural patterns play out in graduates' employment trajectories over a longer time horizon.

Additionally, the young adults I interviewed graduated in 2016 and 2017 when the economy was quite strong. Because of the proximity to Washington, D.C., UMD graduates are near a robust –albeit competitive– labor market. Graduates who are applying for jobs in less competitive labor markets may have an easier time finding an entry-level position even if they did not participate in capital-building activities during college. Young people who are graduating during a recession with high unemployment rates may find that they cannot find a job even if they engaged in extensive career-relevant capital building activities (Abel and Deitz 2016; Redbird and Grusky 2016). Finally, while I was attuned to recruiting a sample that differed by gender and race/ethnicity, the sample size is not big enough to make meaningful comparisons across these demographic groups. Future research should consider how status characteristics may lead to distinct post-graduation employment outcomes.

It is critical for institutions to consider how they can facilitate career-relevant social and cultural capital building for students not coming from advantaged backgrounds. This intervention is especially critical for students who commute to campus, are transfer students, and have few touchpoints to college beyond their coursework. Transfer students may be particularly at risk; for example, one recent

study found that students who started at a community college had a 14 percent earnings disadvantage after graduation compared to those who started at a four-year institution (Witteveen and Attewell 2020). In light of this, colleges and universities may need specific programming to integrate transfer students into campus life and encourage participation in activities that build career-relevant cultural and social capital. COVID-19 has changed the way many universities and colleges engage with students (Caplan-Bricker 2020; Gessen 2020; Mangan 2020). The value of higher education continues to be questioned within an uncertain economy. Establishing programs that shepherd all students through career-relevant capital-building activities could pay dividends for both institutions and graduates.

## Appendixes

### Appendix 3A. Federal Reserve Bank Underemployment Rate and UMD First Destination Survey Outcomes for Selected College Majors

Appendix Table 3A . Selected College Majors

	Engin. & Comp. Sci.		Arts & Humanities		Social Sciences	
	N	%	N	%	N	%
<i>Federal Reserve Bank Data</i>						
Underemployment Rate		23		52		63
Proportion w/ Graduate Degree		16		39		37
<i>UMD First Destination Data, 2016 and 2017 Graduates (Pooled)</i>						
Number of Graduates	2,637		1,052		1,386	
Type of Employment						
Employed FT or PT	877	92	246	87	303	86
Temporary Work	34	4	18	6	31	8
Freelance	7	1	4	1	5	1
Internship or Fellowship	30	3	22	6	15	5
Total	948	100	290	100	354	100
Related to Major						
Directly Related	655	71	142	49	194	54
Utilize KSA	252	24	118	39	118	37
Not Related	41	5	30	12	41	10
Total	948	100	290	100	353	100
Related to Career Goals						
Directly Aligned	560	61	132	46	165	51
Stepping Stone	333	33	113	39	149	41
Pays Bills	55	6	45	16	39	9
Total	948	100	290	100	353	100

*Notes:* Includes student's first major; does not account for double majors. Totals for employment questions do not match total number of graduates because not all graduates completed First Destination Survey.

*Sources:* Federal Reserve Bank summary compiles U.S. Census Bureau, American Community Survey (IPUMS); and U.S. Department of Labor O\*NET data as of March 2019. First Destination data is author's analysis of UMD Career Center's restricted survey data.

## Appendix 3B. College-to-Career Semi-Structured Interview Guide

### Opening

(Establish Rapport) Thank you for agreeing to be interviewed for this study.

(Purpose) I would like to ask you some general questions about your work history and then we'll talk about what you're currently doing, and what you hope for the future.

(Motivation) I hope to use this information to better understand how people make decisions about jobs after graduating college.

(Time Line). The interview should take about 60 to 90 minutes. Do you have any questions for me before we begin?

### Section 1. College Experiences

*Settle in/get comfortable: confirm major(s) and graduation date*

Think back to when you were a little kid. Tell me about what you wanted to “be” when you grew up.

- Why were you interested in that job? Did you know someone with that job growing up?

When you were younger, what did you think was a good job? Why?

What types of jobs did your parents have when you were growing up?

When you were entering college, tell me about what you wanted to “be”.

- Why? Did you know someone with that job growing up?
- Is this why you wanted to go to college? [why did you want to go to college?]

Did this aspiration change while you were in college? Why?

Why did you choose UMD? [*get at whether perceive it as good school*]

How did you choose your major(s)?

Tell me about your work and internship experiences during college. [*probe for work being related to major(s) or not*]

- Internship(s): paid or unpaid? Credit or no credit?

How many years were you at UMD? When did you start college? [*How long did it take to graduate?*]

When you graduated, what type of job did you want? (What did you want to “be” when you grew up?)

- Has this goal changed since graduation? In what ways? Why?

- Have your expectations about what you want in a job changed? When? Why?

*(Transition: Let's talk about what happened as you were finishing college).*

## **Section 2. College Graduation and First Destination**

As you approached college graduation, what were you planning to do in the first few months after graduating?

- Plans to attend grad school? Internship? Job Search? Relax?
- Tell me what you imagined you'd be doing after graduation

Tell me about your first few months after graduation.

- How did you spend your time?
- Where were you living?

After graduation, how did you search for a job? How did you find out about job openings?

- Social networks, college career center, alumni, resources *within* major, etc.
- Use Career Center resources during college? Career Center resources AFTER college?

What was going through your mind during that job search time? How were you feeling?

Tell me about the first job you got after graduating college [reference screening questionnaire].

- When did you get your first job after graduation? (timeline)
- Tell me about a typical day in this position
- What was your starting salary?
- How did you decide whether to accept it?
- What parts of the job do you enjoy? Not enjoy?
- How related was it to your college major?
- How did this job align with what you expected to be doing at the time you graduated?

Different people value certain aspects of jobs more than others (for example, salary, work environment, or location). What was most important to you when thinking about your first job?

- What's most important to you now?

*(Transition: Now I'm going to ask you about what's happened between that first job and today).*

## **Section 3. Pathways after First Job** *(if not still in first destination job)*

Tell me about the job(s) you've had since that first job after graduation. [*attempt to recreate timeline, including how long at each job*]

What made you decide to leave your initial job?

How did you find another job?

What were you looking for in a new position?

When you thought about leaving that first job, what options were available to you?

- How did you know those were your options?

Have there been times when were not able to get the type of job you wanted?

- Tell me about this. When?

Sometimes there can be hurdles people have to jump to get the type of job they want.

Were there specific hurdles that were keeping you from the type of job you wanted?

*(Prompt for barriers such as specific skills, not wanting to move)*

How did that affect your subsequent job search strategies?

How did that affect your outlook on work? Why?

How'd you end up in [current location]?

*(Transition: Let's talk about what you want and expect from a job).*

#### **Section 4. Current Job Aspirations & Expectations**

How do you define a good job today? How has this changed since younger/graduating?

What do you want from work? What's most important to you in a job?

How much choice do you have about what type of work you'd like to do?

How does student loan debt affect the type of job you're interested in? How would your expectations change if you had NO student loan debt?

When you think about a job/career, what are you excited about? What pressures/stress do you feel?

Outside of work, how do you like to spend your time? *[probe for connections to other social institutions – church, volunteering, group activities, etc.]*

- Are you involved in any volunteer activities or athletic groups?

*(Transition: Let's talk about how you feel with where you're currently at).*

#### **Section 5. Economic Position**

Do you currently get any help from your parents financially?

- What about right after you graduated?

- Are you still on your parents' health insurance?

How satisfied are you with your current job?

Tell me about your friends. What do they do for work?

- Compared to your friends, how do you feel about the type of job you have?
- How do you feel like you're doing financially compared to your friends?

How do you feel like you're doing financially compared to your parents/family?

What does it look like to be successful in this economy?

- How satisfied are you with your financial/economic position?

How will you know when you've been successful?

When you're stressed about money or financial security, how do you deal with it?

If you don't have the job you want, why do you think that is?

What would it look like for your degree to pay off?

- If you had a younger sibling or cousin ask whether they should go to college, would you tell them it's worth it? Why or why not?

Why do you think there are people with a college degree who are working in jobs that don't require a degree?

If you could go back in time to when you were a student, what do you wish you would've known about getting a job? Being in the workforce?

How could UMD have better prepared you for the realities of getting a job/being in the workforce?

*(Transition: Let's talk about what you hope for in the future).*

## **Section 6. Visions for the Future**

What's next for you? *\*Prompt for feeling stuck (or not) in current job*

If you could wave a magic wand and have any job in the world, what would be your ideal position? Why?

- What would a typical day look like in this position?
- What would it take to get this kind of job?

What type of job do you think you'll have in 5 years? 10 years?

How possible is it for you to get the job you want?

How will you achieve [ambitions described above]?

What are the barriers keeping you from doing your ideal job?

As you think about the future, how do you feel?

When you think about your future, how does a family fit in, if at all?

- Are you currently in a relationship / Do you hope to have a partner?
- Do you have children / want kids?
- How might this affect your job/career?

**Wrap-up**

Are there other things I haven't asked about that you think I should know?

Is there anything else you want to share?



### Appendix 3C. Interview Codes

Agency	
Barriers	Job
Career Trajectory	Dream
Changing Jobs	Expectations
College Pathway	Exploration
College Experience	Pay
Extra-Curriculars	Related to Major
Mentoring	Satisfaction
Study Abroad	Search
Where Live	Typical Day
Career Center	Values
Jobs	Kid Good Job
Connections to Institutions	Labor Market
Coping	Major
Economic	Narrative
Friends	Network
Health Insurance	Parents Jobs
Position	Quote
Family Planning	Race
Fired	ROI
Future	Sibling
Geography	Social Capital
Grad School	Student Loan
Graduation	Success
Plans	Uncertainty
Transition	UMD Better Prepared
First Job	Wish Known
Internship	
Internship After Graduation	

### Appendix 3D. List of Interview Respondents, Respondent Attributes, Institutional Engagement Activities, and Employment Outcome Four Months Post-Graduation

Appendix Table 3D. List of Interview Respondents, Respondent Attributes, Institutional Engagement Activities, and Employment Outcome 4 Months Post-Graduation

Pseudonym	Gender	Race	Major	Grad. Year	First Gen	Transfer Student	Student Loans (thousands)	Study Abroad	Lived in Student Housing	LLC	1+ Student Orgs	Worked; Profess.-Track	Total # of Activities	Outcome 4 Months Post-Graduation
1 Kendall	Woman	Multiracial	Soc Sci	2017	Yes	Yes	22					Yes	0	Adequate Employment
2 Sheldon	Man	White	Egr CS	2018					Yes			Yes	1	Adequate Employment
3 Grant	Man	White	Egr CS	2017	Yes	Yes	25					Yes	1	Adequate Employment
4 Henry	Man	Multiracial	Art Hum	2017		Yes			Yes			Yes	1	Adequate Employment
5 Austin	Man	White	Egr CS	2017					Yes			Yes	1	Adequate Employment
6 Joel	Man	White	Egr CS	2016					Yes			Yes	1	Adequate Employment
7 Sydney	Woman	Asian/Pac Isl.	Egr CS	2017				Yes	Yes				2	Adequate Employment
8 Hope	Woman	White	Art Hum	2017					Yes			Yes	2	Adequate Employment
9 Landon	Man	White	Soc Sci	2016		Yes	30		Yes			Yes	2	Adequate Employment
10 Holly	Woman	White	Soc Sci	2017			20		Yes		Yes	Yes	2	Adequate Employment
11 Genesis	Woman	White	Art Hum	2016		Yes			Yes			Yes	2	Adequate Employment
12 Marco	Man	Latinx	Egr CS	2016					Yes	Yes	Yes		3	Adequate Employment
13 Regan	Woman	White	Art Hum	2016			30		Yes	Yes		Yes	3	Adequate Employment
14 Helen	Woman	Asian/Pac Isl.	Egr CS	2017					Yes	Yes		Yes	3	Adequate Employment
15 Chase	Man	White	Egr CS	2017					Yes	Yes		Yes	3	Adequate Employment
16 Jason	Man	White	Art Hum	2016				Yes	Yes			Yes	3	Adequate Employment
17 Josiah	Man	White	Art Hum	2017				Yes	Yes		Yes	Yes	4	Adequate Employment
18 Jenna	Woman	White	Soc Sci	2016	Yes				Yes	Yes	Yes	Yes	4	Adequate Employment
19 Elena	Woman	Latinx	Soc Sci	2016	Yes		30	Yes	Yes		Yes	Yes	4	Adequate Employment
20 Olivia	Woman	Asian/Pac Isl.	Soc Sci	2017				Yes	Yes	Yes	Yes	Yes	5	Adequate Employment
21 Gabriel	Man	Latinx	Art Hum	2017					Yes			Yes	1	Grad School
22 Gavin	Man	White	Art Hum	2016	Yes	Yes	30	Yes					1	Grad School
23 Isabella	Woman	Latinx	Art Hum	2016		Yes	12		Yes			Yes	2	Grad School
24 Janae	Woman	Black	Soc Sci	2017			45		Yes	Yes		Yes	2	Grad School
25 Sadie	Woman	White	Egr CS	2017				Yes	Yes			Yes	3	Grad School
26 Ian	Man	Black	Art Hum	2016					Yes	Yes	Yes	Yes	3	Grad School
27 Imani	Woman	Asian/Pac Isl.	Egr CS	2016			60	Yes	Yes	Yes	Yes	Yes	5	Grad School
28 Nadia	Woman	Black	Art Hum	2017	Yes	Yes	50				Yes	Yes	1	Internship
29 Makenzie	Woman	Asian/Pac Isl.	Soc Sci	2017					Yes			Yes	1	Internship
30 Evelyn	Woman	White	Soc Sci	2016					Yes			Yes	1	Internship

Appendix Table 3D Continued. List of Interview Respondents, Respondent Attributes, Institutional Engagement Activities, and Employment Outcome 4 Months Post-Graduation

Pseudonym	Gender	Race	Major	Grad. Year	First Gen	Transfer Student	Student Loans (thousands)	Study Abroad	Lived in Student Housing	LLC	1+ Student Orgs	Worked; Profess. - Track	Total # of Activities	Outcome 4 Months Post-Graduation
31 Noah	Man	White	Egr CS	2017					Yes			Yes	2	Internship
32 Hector	Man	Latinx	Art Hum	2017			15		Yes	Yes		Yes	3	Internship
33 Sierra	Woman	Black	Art Hum	2017					Yes	Yes	Yes	Yes	3	Internship
34 Erica	Woman	Latinx	Art Hum	2016			30	Yes	Yes	Yes	Yes	Yes	4	Internship
35 Alanna	Woman	Black	Art Hum	2017				Yes	Yes	Yes	Yes		4	Internship
36 Zoe	Woman	White	Art Hum	2016		Yes	30	Yes	Yes		Yes	Yes	4	Internship
37 Leigh	Woman	White	Egr CS	2017					Yes	Yes	Yes	Yes	4	Internship
38 Brooke	Woman	White	Soc Sci	2016				Yes	Yes	Yes	Yes	Yes	5	Internship
39 Roman	Man	Multiracial	Soc Sci	2016		Yes	15	Yes	Yes			Yes	2	Service
40 Jillian	Woman	White	Soc Sci	2016				Yes	Yes	Yes	Yes	Yes	5	Service
41 Braden	Man	White	Soc Sci	2017		Yes						Yes	0	Underemployed
42 Bridget	Woman	Black	Soc Sci	2016		Yes	15	1 year only				Yes	0	Underemployed
43 Shayla	Woman	Multiracial	Egr CS	2017	Yes		35					Yes	0	Underemployed
44 Vincent	Man	White	Art Hum	2017		Yes	25					Yes	1	Underemployed
45 Sasha	Woman	Black	Soc Sci	2017				1 year only				Yes	1	Underemployed
46 Trey	Man	White	Soc Sci	2017		Yes	15					Yes	1	Underemployed
47 Savannah	Woman	Multiracial	Soc Sci	2016	Yes	Yes	20		Yes			Yes	1	Underemployed
48 Tania	Woman	Latinx	Soc Sci	2016	Yes	Yes						Yes	1	Underemployed
49 Adam	Man	White	Soc Sci	2017		Yes	16		Yes			Yes	1	Underemployed
50 Mariah	Woman	Black	Soc Sci	2016	Yes				Yes			Yes	2	Underemployed
51 Heidi	Woman	White	Soc Sci	2016					Yes		Yes	Yes	2	Underemployed
52 Miranda	Woman	White	Egr CS	2016					Yes		Yes	Yes	3	Underemployed
53 Curtis	Man	White	Soc Sci	2016					Yes		Yes	Yes	3	Underemployed
54 Sabrina	Woman	White	Soc Sci	2016				Yes	Yes		Yes		3	Underemployed
55 Ashton	Woman	White	Soc Sci	2017				Yes	Yes		Yes	Yes	4	Underemployed
56 Evan	Man	White	Egr CS	2016					Yes				1	Unemployed
57 Melissa	Woman	Multiracial	Soc Sci	2017		Yes			Yes				1	Unemployed
58 Bryce	Man	Multiracial	Egr CS	2016	Yes		100		Yes			Yes	2	Unemployed
59 Lindsey	Woman	White	Art Hum	2016					Yes	Yes			2	Unemployed
60 Terrence	Man	Black	Soc Sci	2016	Yes	Yes	35		Yes			Yes	2	Unemployed

Notes: some graduates had more household student loan debt at the time of the interview because they had taken out additional loans for graduate school or partnered with someone who had student loan debt. This table reflects individual debt at the time of graduation. Majors are not listed individually because combined with the other information in this table could be potentially identifying of participants. Behavioral and Social Sciences (Soc Sci) includes Government & Politics; Sociology; Anthropology, and Criminology & Criminal Justice. Arts and Humanities (Art Hum) includes English, Communications, and History. Engineering and Computer Science (Egr CS) includes

## **Chapter 4: College Graduates' Self-Scarring Underemployment Pathways**

### **Abstract**

Previous scholarship shows that individuals' responses to objective underemployment affects workplace contexts, but it's equally important to understand how graduates subjectively make sense of their underemployment. Using interviews with 60 recent University of Maryland graduates, I propose that graduates' interpretations of, and responses to, underemployment may be *self-scarring* by further exacerbating the consequences of underemployment. Overwhelmingly, graduates are perplexed at their lack of success in the labor market. Graduates' responses to underemployment can be grouped into three pathways: approaches that buffered the consequences of underemployment, risky tactics that sometimes resulted in adequate employment, and methods that were self-scarring because they exacerbated the consequences of underemployment. The response strategies available to graduates were shaped by several structural factors, including familial economic resources, narratives about the employability of specific disciplines, and graduates' understanding of the labor market. I advance the literature on underemployment scarring by highlighting the importance of considering graduates' own behavior, outside of the workplace, when assessing the consequences of underemployment.

## Introduction

*Just because you have a college degree doesn't mean you're going to get that nice salary and a great job.*

-Tania,<sup>20</sup> reflecting on what she wished she would have known as an undergraduate student.

Underemployment is a vexing social problem because it has short and long-term effects on people who invested in a tool of economic mobility – a college education – and do not receive the expected economic return on that asset. The college-to-career transition is a multifaceted matching process between individuals' skills and available jobs (Heinz 2003). However, the interface between school and work is not well defined (Kerckhoff 2003:264) and there are few institutional supports to smooth the transition from school to work (Mortimer et al. 2003). In the best-case scenario in which graduates find a good job immediately after graduation, the school-to-work transition is still a stressful process marked by uncertainty and insecurity (Kitchener 2017).

We know that individuals' responses to underemployment affect workplace contexts such as job performance (Feldman 2011); turnover intentions (Maynard et al. 2006); and job satisfaction, job involvement, and organizational commitment (McKee-Ryan and Harvey 2011). Existing scholarship provides a critical foundation about objective measures of underemployment and associated workplace outcomes, but it's equally important to understand how graduates *subjectively* perceive underemployment. Graduates' subjective perceptions of their underemployment can influence how they interpret and respond to it.

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<sup>20</sup> All names are pseudonyms to protect the identity of participants.

In this chapter, I focus on the behavioral responses of underemployed individuals outside of their work organization, and the self-described rationale behind their strategies. I examine two research questions. First, how do graduates interpret and respond to underemployment? Second, how do those interpretation and response strategies buffer or exacerbate the consequences of underemployment? Drawing on interviews with 60 recent University of Maryland (UMD) graduates, I propose that graduates' responses to underemployment may be *self-scarring* by further exacerbating the consequences of underemployment.

Overwhelmingly, graduates are perplexed at their lack of success in the labor market. Graduates' responses to underemployment fall into three categories: approaches that buffer the consequences of underemployment, risky tactics that sometimes result in adequate employment, and methods that are self-scarring because they exacerbate the consequences of underemployment. The response strategies available to graduates were shaped by several structural factors, including familial economic resources, narratives about the employability of specific disciplines, and graduates' understanding of the labor market. These findings highlight the importance of considering graduates' own behavior, outside of the workplace, when assessing the consequences of underemployment.

### **Self-Scarring Effects**

Underemployment can be scarring (Clark et al. 2017; Nunley et al. 2015), and economic conditions are especially important for young workers (Redbird and Grusky 2016). Conceptual models about the consequences of underemployment highlight three potential scarring effects—long-term consequences as a result of experiencing

underemployment. First, underemployment can influence workplace-related outcomes such as job attitudes, quality of reemployment, in-role job performance, job search strategies, intention to quit, and turnover (McKee-Ryan and Harvey 2011). Studies about underemployment often focus on outcomes such as job performance (Feldman 2011); turnover intentions (Maynard et al. 2006); or job satisfaction, job involvement, and organizational commitment (McKee-Ryan and Harvey 2011). Second, underemployment can have negative career consequences, such as career attitudes and long-term career outcomes (McKee-Ryan and Harvey 2011). When a graduate is underemployed in their first job post-college, there are economic ramifications in terms of lower earnings and limited job security (Clark et al. 2017). Third, underemployment has mental health and job satisfaction implications. Underemployment can affect psychological well-being and marital, family, and social relationships (McKee-Ryan and Harvey 2011:971). Graduates who are involuntarily underemployed and do not meet their occupational goals have more job dissatisfaction and distress (Hardie 2014; Steffy 2017). Underemployment may contribute to young adults feeling unmoored, diminishing their connections to other people and institutions (Kitchener 2017). Long-term underemployment can also contribute to political and social disengagement (Rubin 2014:1094), which has community-wide implications. Contemporary working class young adults who struggled to find steady employment had low expectations of work, distrust social institutions, and are isolated from meaningful social connections (Silva 2013).

These long-term consequences can be *scarring* in that they have lasting effects even after the period of underemployment has ended. However, most research

about the behavioral consequences of underemployment emphasizes how underemployment affects employers and workplace-related decisions. I propose that graduates' make decisions in responses to underemployment that may be *self-scarring* by further exacerbating the consequences of underemployment.

I advance the literature on underemployment scarring by emphasizing graduates' own agency and decision-making in response to underemployment. When graduates experience underemployment, they may respond in ways that buffer or exacerbate some of the consequences of underemployment. Context for these decisions is paramount, as the same action may lead some graduates to adequate employment while prolonging underemployment for other graduates. For example, I talked with graduates who accepted an *underemployed* job after being *unemployed*. For some young adults, underemployment was an effective transitional status; they continued applying for jobs in their desired career field and underemployment was a stepping stone. Other graduates settled into their underemployed jobs and stopped applying for career-oriented jobs. These graduates, I argue, engaged in *self-scarring* by prolonging the duration of their underemployment.

While graduates exercise agency in interpreting and responding to underemployment, their decisions are made within an unequal structural context. Some graduates have financial help from their parents to take an unpaid internship in an attempt to break into their desired career field, for example, while other graduates are under immediate financial strain and must accept the first job offer that comes their way. In this chapter, I argue that shifting the framework from how underemployment affects graduates to how graduates experience underemployment,



and what they do in response, reveals 1) the unequal choices available to underemployed graduates; and 2) provides a more nuanced understanding of young adults as agentic beings within the structural constraints of a precarious labor market.

## **Interpretations of Underemployment**

### *Self-Narrative*

People use various framing techniques to make sense of their economic position, which then creates a self-narrative about their position in an unequal economy. Human agency can explain differences in how people perceive their economic situation and their visions for the future. For example, stating future ambitions can be a way for young people to engage in identity work and establish their sense of self (Bandelj and Lanuza 2018). This extends to educational aspirations; working-class youth envision college as a tool of “salvation” while middle-class youth view it as a “safety net” (Silva and Snellman 2018). In an era where steady jobs are rare and economic precarity is the norm, contemporary working-class young adults use a therapeutic logic to create moral legitimacy and self-worth within a bleak economic context (Silva 2013). People find ways to rationalize their position in an unequal economy. Men working in blue-collar jobs define worth and cultural membership in a neoliberal era by forming moral communities, and specifically, a moral code of personal integrity and quality interpersonal relationships (Lamont 2000:9). Because their jobs were low status, they emphasized morality as a mechanism to affirm their self-worth and dignity (Lamont 2000).

Narratives about one's economic position – and subsequent framing – are not limited to working-class young adults. Wealthy elites rationalize their success as earned and deserved, which is a strategy to make sense of their high-status position in an unequal economy (Khan 2011; Rivera 2015; Sherman 2017). The economic narratives people tell about themselves and their community reflect their perceived sense of agency, which can be applied to underemployed college graduates.

Graduates' interpretation of their underemployment is essential for understanding their underlying rationales for any action (or inaction) in response to underemployment (Scurry and Blenkinsopp 2011; Steffy 2017). It's not easy to endure after failure (Duckworth 2016). Especially for young adults who have not experienced many setbacks, not immediately obtaining a career-oriented job after graduation may be the first time they have failed at something. Graduates who resign themselves to their underemployed job may rationalize it as a choice or intentional decision to avoid cognitive dissonance. At the same time, failure also has the potential to galvanize people into action. Some graduates who see their underemployment as a failure, for example, may be motivated to persevere in finding adequate employment (Duckworth 2016). Unpacking graduates' goals and aspirations within the context of their outcomes is important for understanding how they respond to adverse events.

### *Perceiving Underemployment as Voluntary*

Most studies of college graduate underemployment use large surveys to quantify underemployment and associated outcomes (Maynard and Feldman 2011; Scurry and Blenkinsopp 2011). This research provides a critical foundation about

objective measures of underemployment, but it's equally important to understand how graduates *subjectively* perceive underemployment. While the overwhelming narrative is that young adults go to college to get good jobs, it's possible that the archetypal underemployed barista is working in that position by choice. Some people may have never desired a college job in the first place; perhaps they went to college because it was expected (Rosenbaum 2001), to meet a potential spouse, or become a better citizen. Other graduates may deliberately choose underemployment so they have time to pursue other hobbies or pursuits. There may be incongruence between those who are objectively underemployed and graduates' subjective perceptions of whether they see themselves as underemployed (Scurry and Blenkinsopp 2011).

Most scholarship assumes underemployment is a negative, unintentional outcome, yet some underemployed college graduates perceive their underemployment as voluntary (Steffy 2017). There are class differences in this perception of choice. Graduates from middle-class backgrounds are more likely to see their underemployment as voluntary, while graduates from working-class backgrounds tend to be involuntarily underemployed (Steffy 2017). Interpreting one's underemployment as voluntary may be a post hoc coping strategy. My interview data are not able to ascertain the psychological processes leading to this conceptualization. However, even if asserting agency through this voluntary framing is an (un)conscious coping technique, it still illustrates how a different understanding of the situation may shift responses to underemployment.<sup>21</sup>

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<sup>21</sup> See the Methodological Appendix in Sherman 2017 for a discussion of discourse versus behavior.

## **Responses to Underemployment**

Graduates' subjective perceptions of their underemployment can influence how they interpret and respond to it. Graduates who believe personal efforts can remedy the situation are more likely to engage in action, such as searching for a new job; if they think the situation is hopeless they may resign themselves to underemployment (Duckworth 2016; Feldman 2011). Underemployment may lead some graduates, especially those who think they can take steps to improve their career options, to recognize that additional skills or experiences are needed to meet their job goals. Young adults who come from higher socioeconomic status backgrounds likely have family support to return home to live rent-free or pursue a graduate degree in order to bolster their chances of labor market success. Young adults from marginalized communities, who often have fewer resources, may not have these same options available.

While interpretations of underemployment may influence how graduates respond, *who* can afford to maintain optimistic expectations, and take the steps necessary to meet desired career goals, is an empirical question. Financial resources influence the choices available to young people immediately after graduation. In certain fields, internships are increasingly a primary way of accessing entry-level positions. Graduates who have financial security – often through parents' paying their living expenses – can take an unpaid internship after graduation in their desired field (Selingo 2016). Internships can mitigate the scarring of underemployment; underemployed graduates with relevant internship experience had callback rates about 17 percent higher than underemployed graduates with no previous internships

(Nunley et al. 2015). However, graduates with student loan debt or who do not have familial economic resources to take an unpaid position face pressure to immediately obtain a paying job after graduation, limiting their options (Selingo 2016).

People who return to school to obtain a master's degree to bolster their labor market opportunities often take on additional debt. Students of color and first-generation students are more likely to have existing undergraduate student loan debt, and therefore are disproportionately affected at the prospect of taking on additional student loan debt for a graduate degree (Board of Governors of the Federal Reserve System 2020; Goldrick-Rab, Kelchen, and Houle 2014; Scott-Clayton and Li 2016). Additionally, the returns on human capital investment – such as education – are racialized, meaning the payoff of a graduate degree may be diminished for people of color (Browne and Misra 2003; Gaddis 2015; Tomaskovic-Devey et al. 2005). These tactics thus have the potential to reproduce existing inequalities in the consequences of underemployment.

Life course research recognizes the seminal “launching stage” which generally happens in young adulthood when expectations about work and family take structural realities into account (Moen and Roehling 2005). Emerging adulthood and the acceptance of slowly settling into a career during one's twenties looks quite differently than the rapid succession of marriage and family formation for young people in the 1950s (Arnett 2000; Bonnie, Stroud, and Breiner 2015; Huston and Melz 2004).<sup>22</sup> Working careers are starting later as college graduates collectively

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<sup>22</sup> Although see Selingo (2016) for a discussion of how the concepts of emerging adulthood and prolonged adolescence are not new.

meander to a stable position (Selingo 2016). Some college graduates may expect to return to their parents' home as they engage in this winding launch process, especially if they are underemployed after college graduation. This is consistent with evidence that people return to their parental home during times of transition, such as divorce or job loss (Da Vanzo and Goldscheider 1990), and may be an especially useful strategy in a precarious labor market (Kaplan 2012). Returning home is only an option for those with a family who can support them; many young adults do not have this resource available (e.g., Silva 2013).

In summary, college graduates may self-scar as they interpret and respond to underemployment, making choices that exacerbate the consequences of underemployment. Graduates make decisions with a context of structural inequality, such as familial economic resources. Because of these preexisting resources, the same course of action has the potential to be self-scarring for some graduates while it buffers the consequences of underemployment for others.

## **Data and Methods**

### *Interviews*

This article uses data from 60 semi-structured interviews with University of Maryland (UMD) graduates conducted between June and August 2019. All respondents graduated from UMD in 2016 or 2017.<sup>23</sup> At the time I talked with them, all respondents were two to three years post-graduation. This is a strategic timepoint to talk with graduates because they are far enough removed from graduation to see

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<sup>23</sup> Except for one respondent who graduated in 2018.

divergence in trajectories. Initial labor market uncertainty has settled two to three years after graduation, yet it's recent enough that people still remember their school-to-work transition. Interviewing people too far after an event may lead to post hoc rationalization, masking structural patterns.

Because different college majors influence the likelihood of underemployment (Federal Reserve Bank of New York 2018), I recruited a stratified sample based on three groups of majors with varying levels of education-occupation match (Bol et al. 2019; Rios-Avila and Saavedra-Caballero 2019). Education-occupation match refers to the typical career pathway for graduates with the same educational qualifications. At the highest level of education-occupation match, graduates end up in the same or very similar occupations (e.g., accounting or medicine). Graduates at the other end of the education-occupation match continuum end up in very diverse types of occupations (e.g., philosophy majors) (Bol et al. 2019).

I recruited graduates from 11 majors that are situated within several UMD colleges and classified them into three groups (see *Appendix 3A*). The first group includes majors with relatively direct links between education and occupation: computer science, bioengineering, materials science & engineering, and mechanical engineering, which I group as “engineering and computer science.” The second group has comparatively abstract, indirect levels of education-occupation match and includes English, communications, and history, which I group as “arts and humanities.” Finally, the third group has an intermediate level of education-occupation match and includes government & politics, sociology, anthropology, and criminology & criminal justice, which I group as “social sciences.”

To determine which college majors to include in the sampling frame, I compared majors using the Federal Reserve Bank post-college underemployment data, the proportion of students who go on to graduate school, and gender segregation among college majors (Federal Reserve Bank of New York 2018; Quadlin 2019). I then used two strategies to refine which majors to include in this study. First, I conducted pre-interviews with six UMD Career Center staff. At UMD, Career Center staff are embedded as Program Directors within academic colleges. I asked Program Directors about typical career pathways for students within specific majors, industry hiring norms, department internship requirements, and their perceptions of job outcomes for graduates.

Second, I obtained IRB approval to access UMD's detailed First Destination Survey data. The First Destination Survey is part of an initiative by the National Association of Colleges and Employers to track career outcomes for college graduates within six months of graduation.<sup>24</sup> At UMD, this survey is conducted annually by the Career Center to determine where graduates "end up" after graduation (e.g. graduate school, employment, military service, etc.). The publicly available data includes employment rates by college, but not by major.<sup>25</sup> As shown in *Appendix 3A*, I analyzed the restricted data to see employment rates by department, and specifically compared how underemployment rates by major at UMD differed from national Federal Reserve Bank data. Through this process, I narrowed my sampling frame to include the three groups previously described. This sampling frame was designed to

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<sup>24</sup> <http://www.naceweb.org/job-market/graduate-outcomes/first-destination/>

<sup>25</sup> <https://careers.umd.edu/parents/get-informed/career-outcomes-umd-grads>



capture those most and least at risk of underemployment, providing opportunities for analytic comparison. Additionally, it can be reasonably assumed that students within a given major had similar exposure to campus resources related to career preparation and job searching.<sup>26</sup>

To recruit interview participants, the UMD Alumni Association sent an email on my behalf to 2016 and 2017 graduates of the selected majors describing the study and inviting alumni to complete a short initial screening questionnaire. The survey screened for initial underemployment, collected basic demographic information, and asked respondents to provide contact information if they were willing to participate in an interview. Respondents reported their college major(s), graduation year, first two work-related experiences after graduation (both paid employment and experiences such as internships or graduate school), and contact information. Of the 5,419 graduates<sup>27</sup> who received the Alumni Association email, 324 graduates completed the screening survey.

I used a purposeful quota sampling technique (Gerson and Damaske 2021; Luker 2008) to ensure I recruited an adequate number of participants for key parameters of interest: experiences of underemployment since graduation, college major, gender, and race. Demographic descriptives of the interview sample are presented in *Table 4.1*. I show, in *Table 4.1*, how the interview sample compares to all UMD undergraduates in 2012-2013 and 2013-2014—the academic years most of

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<sup>26</sup> For example, all engineering students are required to complete at least one resume review with the Career Center prior to graduation. This is differentiated from barriers to *using* campus resources, such as students' work schedules conflicting with open Career Center hours.

<sup>27</sup> Number is approximate because of estimation from Behavioral & Social Sciences (about 2,000 people). Exact numbers for the other majors are: 966 Arts & Humanities; 1,098 Engineering; and 1,355 Computer Science.

my respondents were starting college. Because I oversampled graduates who had experienced underemployment, the interview sample may not be demographically representative of all UMD graduates.

Table 4.1. Demographic Characteristics of UMD Interview Sample (N = 60) Compared to UMD Undergraduate Students in 2012-13 and 2013-14

	Interview Sample		UMD Undergraduates	
	N	Percent	2012-13	2013-14
<b>Gender</b>				
Men	25	42%	53%	53%
Women	35	58%	47%	47%
<b>Race</b>				
White	32	53%	55%	53%
Black	9	15%	12%	13%
Multiracial	8	13%	3%	4%
Latinx	6	10%	8%	9%
Asian/Pacific Islander	5	8%	15%	15%
<b>College Major</b>				
Behavioral & Social Sciences	27	45%	25%	23%
Arts & Humanities	17	28%	11%	11%
Engineering & Computer Science	16	27%	15%	16%
First Generation	12	20%	N/A	N/A
Transfer Student	19	32%	7%	7%
Graduate Degree at Time of Interview	6	10%	N/A	N/A
Student Loan Debt	23	38%	33%	33%
<b>Graduation Year</b>				
2016	30	50%	N/A	N/A
2017	29	48%	N/A	N/A
2018	1	2%	N/A	N/A

*Notes:* First generation is defined as neither parent having a bachelor's degree or higher. Interview participants had \$12,000 - \$150,000 in student loan debt; median amount was \$30,000. I compare the interview sample to all UMD undergraduates in 2012-2013 and 2013-2014 because those are the academic years when most of my respondents started college.

I conducted all 60 interviews, which ranged from 50 minutes to almost three hours. Most interviews were about 90 minutes. Interviews were conducted in person if the respondent lived in the D.C./Maryland/Virginia (DMV) area, and over the

phone if respondents did not live in the DMV area.<sup>28</sup> Respondents received \$30 in appreciation of their time. An incentive helps mitigate selection concerns by providing a financial motivation for participating in addition to those who may agree to participate for personal or altruistic reasons. I used a semi-structured interview guide (see *Appendix 3B*) to ask about pathways into college, work and internship experiences as students, employment and education trajectories since graduation, and plans for the future. The questions probed for understanding strategies and thought processes as decisions were made. All interviews were audio recorded and transcribed.

### *Analytic Strategy*

In addition to coding the interview transcripts, which I describe in more detail below, I built a detailed event history analysis for each respondent. I coded graduates into six categories reflecting their status each month after graduating from UMD: *adequately employed*, working in a job that requires a college degree; *underemployed*, working in a job that does not require a college degree;<sup>29</sup> *unemployed*, not currently working and searching for work; *internship*, completing a paid or unpaid internship; *service*, participating in Peace Corps or AmeriCorps; and *graduate school*; currently enrolled in a professional or graduate degree program. I coded their employment

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<sup>28</sup> Of the 60 interviews, 37 were conducted over the phone (62%) and 23 were conducted in person (38%).

<sup>29</sup> Following other studies that conceptualize underemployment as overeducation, I classify whether a job requires a degree using the Department of Labor's O\*NET database. The question that is typically used asks workers in each job, "If someone were being hired to perform this job, indicate the level of education that would be required." Respondents select from twelve detailed education levels, ranging from less than a high school diploma to post-doctoral training. If more than 50 percent of the respondents working in that occupation indicate that at least a bachelor's degree is necessary, the job is coded as a college job (Abel and Deitz 2016:6-7; Federal Reserve Bank of New York 2020).

status (adequately employed, underemployed, unemployed, internship, service, or graduate school) each month from the time of graduation until our interview, which ranged from 10 to 39 months. I added additional layers to depict whether these events were voluntary (e.g., had always intended to go to graduate school) or “Plan B” decisions (e.g., enrolled in a master’s program after being unable to obtain adequate employment). I grouped graduates with similar pathways into clusters to understand themes and patterns.

For transcript analysis, I used RQDA, a qualitative package within R, to organize and code the transcripts (Ronggui 2016). I employed flexible coding to analyze the data, which involves applying three types of codes: index, analytic, and attributes (Deterding and Waters 2018). First, I indexed the transcripts using broad codes from my research questions and interview protocol, including applying codes for each question in the interview guide. Examples of index codes included college pathway, graduation plans, job search, and job expectations. I next limited my reading to relevant transcript text about post-graduation job search and subsequent decision making, using index codes such as graduation plans, job search, and first job after college. Examples of analytic codes that emerged during this reading were “internship after graduation,” “job exploration,” and “fired.”<sup>30</sup> Respondent attributes are ignored at this stage to avoid confirmation bias about relationships between concepts (Deterding and Waters 2018). Finally, I applied analytic codes across respondent attributes for concept validity and to refine theoretical frameworks. Respondent attributes include un(der)employment status since graduation, college major, gender,

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<sup>30</sup> See *Appendix 3C* for a list of all interview codes.

race, first generation, and transfer student status. Through this process, I examined clusters of relevant transcript sections grouped by the pathways identified in the event history analysis. I iteratively worked between graduates' narratives and explanations in the transcripts and the trajectories I had mapped in the event history analysis to refine my findings. Applying flexible coding and conducting qualitative analysis in an exportable format meets emerging standards for describing qualitative analysis in more detail and making de-identified coded transcripts publicly available (Deterding and Waters 2018; Pepin 2018).<sup>31</sup>

### **College Graduates' Self-Scarring and Underemployment Pathways**

Of the 60 graduates I interviewed, 14 (23 percent) had smooth transitions from college to employment and seven (12 percent) went directly to graduate school. This analysis focuses on the 39 people (65 percent of sample) who experienced un(der)employment after graduation. Graduates' responses to underemployment can be grouped into three pathways: approaches that buffer the consequences of underemployment, risky tactics that sometimes result in adequate employment, and methods that are self-scarring because they exacerbate the consequences of underemployment. These pathways are summarized in *Table 4.2*. Graduates' action or inaction in response to underemployment are shaped by several structural factors, including familial economic resources, narratives about the employability of specific disciplines, and graduates' understanding of the labor market.

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<sup>31</sup> I intended to make the de-identified coded transcripts from this project publicly available prior to publication. Unfortunately, the RQDA package in R is no longer supported so this is not possible (Ronggui 2016).

Table 4.2. College Graduates' Underemployment Pathways

	N	%	Typical Duration of Un(der)employment	Context & Graduate Rationale	Potential Scarring Consequence
<i>Buffering</i>					
Job Expectations	4	11%	3 months	Lack of financial safety net; need immediate income	Minimal
Actively Applying	3	8%	3-4 months	Brief event while pursuing career jobs	
Intentional Internships	5	14%	6 months	Stepping stone for career field; early graduation	
<i>Risky</i>					
Credentialing	3	8%	1-3 years	Additional credentials lead to career jobs	Opportunity cost may not lead to adequate employment
Internships	5	14%	1-2 years	Potential entryway into desired career field	
<i>Self-Scarring</i>					
Alternative to Unemployment	5	14%	1 year	Any job is better than unemployment	Underemployment becomes long-term; multiple temporary/short-term jobs
Unable to Obtain Adeq. Employ.	6	16%	2+ years	Continue working college service-sector job	
Voluntary	6	16%	2 years	Hesitant to commit to long-term opportunity	
Total	37	100%			

*Note:* Two graduates did not fit into any of these categories and therefore are not reflected in the table. One was unemployed for 10 months after graduation due to a health issue and then obtained adequate employment; the second was unemployed for 7 months after graduation, adequately employed for 2 years, and then unemployed for the 3 months leading up to our interview.

### *Buffering Approaches*

I begin by describing strategies young people used that buffered the consequences of underemployment, leading to adequate employment with three-to-six months of graduation. First, four graduates (11 percent of analytic sample) lowered their job expectations in response to unemployment. These graduates had some of the shortest durations of adverse employment—typically obtaining adequate employment within three months of graduation. Graduates in this pathway had few financial safety nets to fall back on and needed immediate income. In response to graduating and not having a job, they lowered their job expectations, accepting positions that were not on their desired career pathway.

Jenna, a White woman who majored in the Social Sciences, was raised by her father and was the first in her family to go to college. Jenna was in the Honors College and was focused on finishing her honors thesis leading up to her December graduation. Graduating a semester early, Jenna began her job search in earnest immediately after commencement, applying for jobs in student affairs, the non-profit sector, and even administrative assistant positions “to get my foot in the door somewhere.” In the two months after graduation, Jenna estimates applying to about 250 jobs, sometimes upwards of 30 jobs a day. Jenna quickly expanded the parameters of her job search, noting, *“I knew that I needed to find something quickly to pay my bills. And I was just really willing to do anything at that point. I would have done anything to bring in a steady paycheck with benefits.”* Jenna went on to describe those weeks initially after graduation:

*I was just extremely stressed, but I did not want to confront it. Like I just kept watching my bank account go lower and lower and lower, and I think I was just shocked that I worked so hard in school to maintain good grades and involve myself in all these activities and the internship and sort of establish all these connections and no one could help me.*

Jenna ended up obtaining an assistant paralegal job for a global law firm through a temporary agency a few months after graduation. This was not her desired job nor career pathway, but she needed a source of income.

The four graduates who lowered their job expectations in response to unemployment all started at UMD as freshmen and had put forth considerable effort as they obtained their degree. They were engaged on campus—serving as Resident Assistants, joining student council, writing for the campus newspaper, and participating in study abroad. These graduates were working under the assumption that the effort they put into being good students—obtaining institutional capital—could easily be exchanged for economic capital in the labor market via a good job (Silva 2013). As Jenna’s statement reflects, they were “shocked” to find out that their concentrated efforts during college did not easily pay off in the form of labor market success. Despite it not being her intended career pathway, Jenna maximized her temporary position at the law firm, working long hours and impressing her supervisors. Within a few months, she was offered one of the coveted permanent positions, and had been promoted twice by the time I talked with her three years after her graduation.

Like Jenna, Elena, a Hispanic woman who majored in the Social Sciences, was the first in her family to earn a four-year degree. As she approached graduation, Elena was initially looking for a job working in lobbying on “the Hill” [Capitol Hill



in Washington, D.C.]. Elena had interned on the Hill as a student and eagerly submitted many applications for entry-level positions on the Hill and with nonprofit advocacy organizations. However, by summer Elena was still unemployed. I asked Elena what was most important to her when considering potential jobs, and she reflected,

*I really stopped kind of having preferences--I was like, beggars can't be choosers, which is such a--that's not a great mentality to go into job hunting with [laughs]. But I wanted to be like, "I have a nine-to-five job in an office space." Like that's what I wanted.*

Elena's job expectations shifted from an entry-level position on the Hill – where she could ascend the ranks and harness her love of politics – to any nine-to-five office job. This widening of her boundaries was strategic, although she gave up on her desired career pathway because she needed an income. Elena eventually found a job several months after graduation through a temporary agency as a Program Assistant at a large government contractor. The position eventually became permanent, and when we talked three years after she graduated, Elena had been promoted to Program Officer and was considering her next move.

Josiah, a White man who majored in the Arts & Humanities, applied to some writing positions without getting any traction after he graduated. Reflecting on his job search at that time, Josiah remembered,

*I hadn't even published a story then and so I was sort of naive a little bit, and just sort of--okay, I just need to get a job and then once I start making an income, I'll figure it out. That was sort of my mentality. I was very intent on just--I was so naive, thinking back, it's kind of crazy. But I remember thinking, like I just need to get a job. It doesn't really matter at first. I just need to be financially autonomous. I need to sort of be on my feet and then I'll figure it out once I have money in my bank account, and I get some more time to think about it.*

As Josiah's statement exemplifies, graduates who are unemployed often do not have the luxury of time to strategize about their ideal career. Instead, they are focused on getting a job—any job—with the intention of “figuring it out” once they are secure financially. In Josiah's case, he worked several jobs after graduation while continuing to hone his writing on the side. At the time of our interview, Josiah was about to start a M.F.A. Creative Writing Program.

For many of these high-achieving young people, not finding a job after graduation was the first time they had failed at something (Duckworth 2016). They bounced back quickly. While all obtained adequate employment within about three months of graduation, they lowered their job expectations to do so. Financially, they could not afford to *not* be working, and two of the four used temporary agencies to find employment; a platform that does not allow job seekers to be picky about their placement. These graduates had done all the “right things” as students to set themselves up for success. While lowering job expectations result in graduates veering from their desired career paths, their tenacity seemed to pay off by quickly obtaining adequate employment, translating temporary positions into permanent jobs, and not losing sight of long-term goals. In this way, lowering job expectations buffered graduates from long-term underemployment and there seemed to be few permanent career consequences.

Second, three graduates, all White men, were underemployed for three-to-five months after graduation while they continued to actively apply for adequate employment. In these scenarios, graduates filled their time with an underemployed job while their primary focus was continuing to apply for career-oriented jobs in their

field. Sheldon, a White man who majored in Engineering, drove for Lyft immediately after graduation. Sheldon explained,

*During that time [of applying to engineering jobs], I was also driving for Lyft part-time, just again, to be doing something and making a little bit of money and to have something to do during the day. And that allowed me to be flexible for having any schedule I wanted, right? If I got any interviews, I could do them without having to coordinate any sort of schedule stuff, just don't drive that day or whatever.*

Similarly, Braden, a White man who majored in the Social Sciences, had his heart set on a career with the federal government. He applied for about 10 government positions after he graduated, but it took six months to make it through the bureaucratic system and land an interview. While Braden's federal employment application was in process, he continued working his part-time custodian position—the same job he had during college. For this subset of graduates, underemployment was short-term while they pursued jobs in their respective fields. All three were adequately employed within about six months of graduation.

Five graduates (13 percent of analytic sample) intentionally pursued internships after graduation—all happened to be women. Erica, a Hispanic woman who majored in the Arts & Humanities, described her rationale for pursuing an internship after her December graduation,

*I was graduating early but I kept it very low key just because I had a year-long lease and I didn't really want to miss out on that second half of my senior year, so I knew that I wanted to stay in the area and I didn't want to start a full-time job right away. I also knew that I wanted to travel before I started a full-time job and I was set on going to Thailand, but I wasn't going to go to Thailand by myself, so I kind of had to stall and wait until one of my best friends would graduate in May for her and I to go together. So, I actually just applied to a bunch of internships in the area that would keep me around for the next couple of months.*

As Erica finished her internship, she was offered a dream job in publishing in New York City, but it did not pay a living wage and Erica's working-class parents did not have the financial flexibility to help support her. With her student loan payments starting, Erica had to "go where the money was." Erica described the differences she noticed with her friends,

*There's a lot of opportunities that people take not necessarily because of the pay [but] just because it's a good opportunity, especially in New York City. I've come to realize there's a lot of people that are kind of still living with their parents' assistance which is something that I would never have been able to do. I don't know how to explain it, but there's just a kind of clear divide between people that are working jobs because they need the money versus people that are working jobs that get their name out there that aren't necessarily making a lot of money, but it's okay because their parents are helping them. ... But I mean I'm obviously never going to keep up with my friends who have their parents paying for their one-bedroom apartment in SoHo. That's just [scoffs] – I can't keep up with that.*

Unlike graduates who could afford to take a job for fun and postpone "being an adult," the options feasibly available to other young adults at graduation were limited.

Graduates who intentionally pursued internships after graduation had several reasons for taking this approach. Several graduated in December and wanted to do an internship in the spring semester as a filler before seeking a full-time job. Some of this was logistical – they had academic-year leases – or wanted to participate in May graduation festivities with friends before moving from campus or starting a "career" job. These graduates' internships lasted from 3 to 9 months after graduation. While very few internships directly converted into permanent jobs, the graduates in this pathway were typically able to quickly parlay their internships into adequate employment. Internships can be self-scarring when the opportunity cost does not lead

to a return on that investment, but in this case graduates' investments seemed to pay off.

### *Risky Responses to Underemployment*

In response to un(der)employment, eight graduates (22 percent of analytic sample) engaged in skill-building activities in an attempt to bolster their human capital and garner labor market success. These young adults pursued internships and credentialing opportunities in an attempt to obtain adequate employment. While strategic, these responses to underemployment are potentially risky. They can be self-scarring by not delivering a return on the required time and financial investment. Graduates take on opportunity costs to complete internships that are unpaid or offer a small stipend. Similarly, pursuing an additional credential or master's degree requires time and money. Five graduates in this pathway accepted internships when they could not find adequate employment. This group of graduates is distinct from those described previously who *intentionally* applied for internships as they approached graduation. Sierra, a Black woman who majored in the Arts & Humanities, found it much more difficult to obtain a job after graduation than her college advisor led her to believe,

*... it was harder than I thought it was going to be. My favorite advisor that I went back to for the whole four years in Arts & Humanities-- she made me feel very confident that I [would] be very marketable. Based off of my majors, the things that I studied, experiences that I had, the reputation that I had on campus, everyone felt that way. It's just really, really tough to not find something. I saved a Post-it note on my computer of all the jobs that I applied to and the dates and all of it. I save it to look at it, to remind myself of how long that was. I applied to close to 100 jobs within two to three months.*

Many of the graduates I talked with described the long lists and spreadsheets they still saved that reflected their job searches—searches that went much longer than they anticipated. Similar to graduates who lowered their job expectations, those who strategically responded to underemployment were genuinely surprised at how hard it was to find a job. Sierra was applying for graphic design jobs, but after several months of not finding anything, she “started applying to anything” because she needed income. Sierra accepted a full-time position as a Sales Associate at a D.C. museum and expanded her job search to include internships. She landed a design-oriented internship that had the potential to turn into a permanent full-time job. In the end they did not hire her. Finally, nine months after graduation, Sierra accepted a position in marketing and communications for a nonprofit. While Sierra’s internship did not directly lead to a job, she was able to leverage her internship experience as she continued applying for jobs in her desired field.

Lindsey, a White woman who majored in Arts & Humanities and was in the Honors College, interned at the local branch of her hometown library the summer after graduation, hoping it would lead to a job.

*I thought maybe if I did the internship and did a good job that they would want to hire me, you know, because that's what everybody talks about. You know, do an internship, get hired somewhere if they like you. Although, I guess that's more for finance and stuff like that. But, I did apply while I was there for several actual jobs that opened up and I tried talking to the Director about them, but that didn't go very well.*

Lindsey’s internship did not lead to a job, and exacerbated by some health issues, she was mostly unemployed in the three years leading up to our interview. Of the five graduates who pursued this strategy, only one person’s internship led directly to a job.

Un(der)employed graduates who majored in Engineering and Computer Science were especially likely to believe that their degree would immediately translate into a good job. This narrative is reinforced by parents, advisors, and other stakeholders who often assure students in these disciplines that their degree is very marketable. Noah, a White man who majored in Engineering reflected,

*I kind of bought into—I call it the delusion that some engineering students have—that if you graduate with an engineering degree you have a job no matter what, which is definitely not the case. So, I kind of was like, “It will all work out. As soon as I graduate, I’m sure I will get something.” I started taking school more seriously and I was like, “Even if it’s not the greatest job, now that I’m focusing and applying myself, I’m sure it will be fine.” That was kind of my thought process at the time and when I graduated, definitely that was not the case at all [chuckles].*

Noah was looking for a “basic level engineering or engineering technician job,” ideally at a startup. After graduation, Noah interned at his dad’s company while aggressively applying to jobs – he estimates he applied to 250 engineering and engineering-adjacent positions. He was not getting much traction, and about nine months after graduation completed a short online financial industry certificate. Within a few weeks of finishing the course he had a part-time job, and several months later accepted a full-time job as a Financial Analyst for a private equity fund.

Noah was not alone in pursuing additional credentials in response to un(der)employment. Six graduates (15 percent of analytic sample) sought out certifications or master’s degrees in response to lackluster success on the labor market. I differentiate this group of graduates from those who decided to pursue graduate degrees while still in college. For students who graduated in the spring, the reality of their underemployment often sank in after Labor Day. Krystal, a Black

woman who majored in the Social Sciences, was working as a nanny the summer after graduation and recounted her mounting anxiety at not finding a job in her field,

*And in the summer, I wasn't stressing it as much... The end of August came up and I realized that the new school year was kind of starting that September and that I hadn't had anything yet.... I was like, "Other people who I went to school with, they're either starting grad school or starting law school and I was just like, crap." Literally I was like, "What do I do right now because I can't land anything?" And a lot of the jobs that I'd been looking at, even like the entry level ones that I wasn't getting called back for, or even just like regular standard jobs, either all seemed to like – not necessarily require a master's, or some sort of grade level or a position level – but it seemed like the jobs that I at least wanted were maybe going to people who had more education or more experience or something more than just the regular college degree.*

As fall got underway, Krystal continued nannying to make ends meet, but wasn't having any luck finding a job in communications—her desired career. By early November, she started thinking seriously about graduate programs as an alternative and pivoted to studying for the GRE and applying to master's programs. Krystal started a master's program the following fall and had one semester left at the time of our conversation. However, an internship is required to graduate from her master's program, and Krystal had been unable to find a paid internship in the preceding two years of her graduate program. Krystal averaged \$20-25 an hour nannying for wealthy families in the DMV area, and could not afford to give that up for an unpaid internship. This highlights the risk involved with pursuing a graduate degree; it will not necessarily rectify a lack of relevant labor market experience. It's unclear whether an additional degree will pay off for Krystal.

Gavin, a White man who majored in Arts & Humanities, pursued a master's degree immediately after finishing his undergraduate degree. At the time we talked, Gavin had started his own business but was struggling financially. He finished his



education with \$150,000 in student loans. Gavin differentiated between the return on investment of his degrees, “*Basically 99% of the jobs that I have been looking at say at least a bachelor’s degree required. ... The Maryland thing I don’t really mind so much. \$30,000 in debt is like average.*” However, Gavin differentiates the \$30,000 “average” debt he accrued from his undergraduate degree to the additional debt he took on for his graduate program,

*I constantly question the [graduate institution] thing... I really wanted to go to [graduate institution] but now I’m saddled with \$120,000 of additional debt. They say, “Go to [graduate institution], we have this networking thing. It’ll be easy to find a job. 80% of our students find a job within six months and 100% within a year.” Okay, six months after I graduated I still haven’t got an offer from any of these places that I have applied to. So, that one is kind of shaky ground.*

At the time we talked, Gavin was living at home with his mom and on Medicaid for health insurance. He described his student loan debt as an “albatross hanging around my neck” that was influencing his ability to get his own apartment, find a partner, and have kids.

Overall, the graduates who pursued short-term certificates were typically able to get a job in that field afterwards. The short-term certificates graduates completed were typically two-to-three months and are therefore less risky – both in time and money – than master’s programs. For graduates like Gavin and Krystal, pursuing a master’s degree can be risky because the return on investment is uncertain.

### *Self-Scarring*

A sizeable number of graduates (N = 17; 46 percent of analytic sample) made decisions in response to un(der)employment that resulted in prolonged periods of underemployment and often exacerbated the consequences of underemployment; I

call this *self-scarring*. First, five graduates were unemployed after graduation, and underemployment was a better alternative than not having any job. While an *underemployed* job was better than *unemployment*, it had the potential to be self-scarring when graduates grew comfortable in the underemployed job and it became long-term. Evan, a White man who majored in Engineering / Computer Science, could not find a job after graduation. After being unemployed for five months, he moved back in with his parents and started working at Target. When I asked Evan if he ever got discouraged in his job search, he replied,

*In particular, the first bit right after graduating, like the spring semester when I was applying, I wasn't hearing a lot back and that was pretty discouraging, I didn't want to move in with the parents. I was probably feeling most discouraged then. After that I felt more optimistic, especially after I started working at Target. Just having some experience - showing that you're still working - is I think a good thing and I think I got more responses after that. And there could be all kinds of reasons, the economy in general or my new experience or work whatever, but - I don't know, I felt less discouraged after getting a job at Target.*

Evan worked at Target for almost a year while continuing to apply for jobs in his field. He eventually successfully obtained an engineering job. Evan, like other graduates in similar situations, reflected that working – even if it was an underemployed job – gave them a sense of purpose, provided some income, and lessened parental anxiety about their child’s job prospects—an important upshot for young adults living at home.

Unlike Evan, who continued applying for career-oriented jobs, other graduates settled into their underemployed jobs, which can be self-scarring. Curtis, a White man who majored in the Social Sciences, graduated without a job lined up. Through a friend, he got a job at a rock-climbing gym. I asked Curtis if he continued applying

for other jobs while working at the gym. Curtis answered, “*I think I told myself I was taking a breather and I never applied for jobs - like ever. [laughs] I don't know, I just kind of tricked myself into not doing anything, I guess.*” Curtis worked at the rock-climbing gym for more than a year after graduation, and then got an administrative job through his uncle. Graduates who accepted underemployed jobs as an alternative to unemployment were typically underemployed for about a year after graduation.

Second, six graduates had a difficult time obtaining adequate employment and were underemployed for about 2 to 3 years after graduation; half were still underemployed at the time of our interview. Miranda, a White woman who majored in Engineering, recounted her difficult post-graduation job search,

*I was definitely frustrated that I wasn't getting anywhere. My main frustration was most entry level jobs ask for three or more years of experience and I was like, how does any college graduate get hired? [chuckles] ... I also realized that the things that were on the job description, I wouldn't have gotten this from school, so I don't know where I'm supposed to get it. I have to get a job before I can have this experience, but how do I get the first job?*

Miranda did not have a great college GPA, and Engineering internships are competitive. Employers often use students’ GPA as a screening tool. Miranda noted that she wished she had tried harder to get an internship in college, but it is hard to rectify that lack of experience post-graduation.

Graduates who worked an underemployed job in college seemed especially susceptible to settling into that position long-term after graduation—a form of self-scarring. Trey, a White man who majored in the Social Sciences, worked in restaurants as a student. He wanted to go into law enforcement, but shortly before graduation realized he would not meet the entrance requirements. Trey continued working in the restaurant industry after graduation. When we talked more than two

years after he had graduated, Trey was still working as a bartender. At the end of our conversation I asked Trey what he was most worried about when he thought about the future. After thinking for a moment, he responded,

*Being stuck in the restaurant industry. I'm kind of worried that ultimately I might become a manager for the restaurant job just because it's – I've kind of waited it out too long. I can't find another position and it happens to be, yeah, it pays decently, not the best but not the worst, but I just don't see myself wanting to be a manager in a restaurant because I feel like I would really dislike my life if I was that.*

Trey was worried about being stuck in the “soul-sucking” restaurant industry yet had applied to few jobs since graduation. Partly because he was not forced to job search after graduating, the path of least resistance was to continue serving and bartending. The six graduates in this subcategory were all still living at home at the time of our interview. Without rent expenses, their basic needs were typically met. Working an underemployed job long-term can be self-scarring in that graduates become apathetic, not seeking out other opportunities despite dissatisfaction with their current job.

Six graduates (16 percent of the analytic sample) deliberately self-selected into underemployment. While these choices—at least on the surface—appear voluntary, they were often the result of logistical constraints, inadvertent decisions, or adaptations graduates made when they could not find adequate employment. First, four graduates described their underemployment as voluntary. In these contexts, graduates were prioritizing other aspects of life than employment. These experiences could potentially be self-scarring when they resulted in multiple, short-term temporary jobs or underemployment lasting longer than intended. Sabrina, a White woman who majored in the Social Sciences, started volunteering in a research lab on campus her senior year. She then stumbled into her post-graduation job,

*And then they asked me if I wanted to work over the summer and I was like, you know what, it's a good summer job. It's a safety net. I'll just do that. I don't need a car. It's on campus. I can live in the same house that I lived in before, so I did that. And they hire students over the summer and then over the semester they are still paid, but it goes down to like part time for students. But I had graduated—they usually don't hire graduates— but ... there was one person that was kind of Jack-of-all-Trades that had just left. And they were like, “Oh, do you want to come on as that?”*

What started as a low-key summer job turned into two years, and Sabrina was desperate to leave by the time she finally quit. When I talked with her three years after graduation, Sabrina was not at the place she thought she'd be several years after graduation,

*At this point I thought I was going to have my master's already... When I graduated, I was like, this [lab job] is only for the summer. Then I'm going to spend a couple of years in [fieldwork] and then I'm going to go get my masters and you know, life happened and other stuff happened and I'm glad that it did, but it's not—I didn't think I'd be like, here in College Park still.*

While Sabrina's two years of underemployment may have been inadvertent, Hector, a Hispanic man who majored in the Arts & Humanities, was teaching English abroad at the time of our interview. He was applying for advertising, marketing, and public relations jobs as he approached graduation, but without anything lined up, continued driving for GrubHub—a side gig he had started his senior year. As fall approached, Hector expanded his search to include internships,

*I was looking at restaurant jobs, maybe do that while applying [for full-time jobs in my field] and then finally I had – this is in August – two or three interviews which just, I had to settle for internships. I couldn't find a job, so I said, “You know what, I guess we'll go back to internships. I got to get my foot in the door somewhere.”*

Hector had already completed three internships as a student. Midway through his fall internship, Hector decided to complete an online certificate to teach English abroad, and obtained a position to teach English in Europe beginning that winter. At the time

of our interview, Hector had been living abroad for about a year and a half and was very enthusiastic about his current position funding his global travel. While Hector framed his current job as voluntary, his trajectory indicates he embraced this scenario after not finding a job in public relations. When Hector eventually returns to the US, he hopes to work in corporate communications. I asked Hector if he had any concerns about getting a job in the communications field,

*Yeah, I'm quite worried ... because if I didn't get something fresh out of college. I mean, yeah, I've been doing something as far as teaching English abroad. But let's say I come back and I'm 25. "You haven't done anything with experience for that position, or that field of study. Yeah, you haven't been sitting on your rear doing nothing for these past years, but you've been doing something that's unrelated." I don't know. It is stressful when I think about that moment because for one, I'll be older. I'll be up against people that just graduated or people that have that experience. So, it is a stressful thing to think about.*

Hector's experience illustrates that some graduates may frame their underemployment as voluntary, even if it's Plan B, when their original goals were not met. While these graduates are underemployed by "choice," it can be self-scarring when underemployment is for a longer duration than intended, like Sabrina, or potentially is a post hoc rationalization—like Hector.

Other graduates described intentionally accepting "fun" underemployed jobs after graduation. When I asked Heidi, a White woman who majored in the Social Sciences, what her plans were post-graduation, she told me,

*The only thing I was planning on was going back to the farm stand. I loved it. I have a really long time to be an adult. I'm never going to be in a position again to just work a really fun hourly job [chuckles] that I really love again. So, yeah, that was going to be my plan actually through December, they have Christmas tree season. ... So that was my plan for the next nine months, I guess that would have been. And then after that, I mean, I hadn't really pictured specifically what—I mean, I knew I would move from there to some kind of more office-based job. But I wasn't really sure what I wanted to do or*

*how long I wanted to wait before grad school or what the plan was.*

Heidi worked at the farm stand for about six months. A friend told her about an internship at a nonprofit, and Heidi left the farm stand in the fall and worked as a paid intern for the next seven months, before accepting a full-time job at another nonprofit. Heidi's ability to choose a "really fun hourly job" was only possible because her parents provided a financial safety net; this was not an option afforded to all graduates.

Finally, two people purposely sought out short-term jobs—a form of self-scarring. These graduates did not know what they wanted to do long-term and were worried about committing to something permanent. Adam, a White man who majored in the Social Sciences, was not quite sure what he wanted to do for a career after graduation. Adam moved in with his girlfriend and was working in restaurants while his girlfriend finished her master's degree. He told me,

*I [was] trying at that point to figure out what I wanted to do long term and I knew we weren't going to be out there long term. So, I knew I kind of had some time. I wasn't particularly thrilled about what I was doing [working in restaurants] but I was able to kind of make money, save a bunch, and I mean we were able to do some travelling and kind of do what we wanted to for a little while which was kind of nice because that was one of the reasons I didn't want to jump right into a career, because there was still things we wanted to do at that point.*

Similar to Adam, who worried about prematurely jumping into a career, Sasha knew she wanted to work for a few years before pursuing her master's degree. Sasha, a Black woman who also majored in the Social Sciences, was terrified of being an unemployed college graduate and simultaneously did not want to take a permanent position since she knew she was returning to graduate school in a few years. She recounted,

*I was very afraid I would be in a position where I would be out of work for about six months [or] nine months and have nothing to go back to – have nothing to show for it, and then have to go back to graduate school. I'd have to explain, "What did I learn in the last few years? Nothing."*

Sasha's fear of being unemployed and Adam's hesitancy about jumping into the wrong career path were self-scarring as they opted out of permanent, adequate employment. Because Sasha knew she was returning to graduate school in a few years, she sought out short-term jobs through temporary agencies. These positions were inconsistent and left her without a stable work history or the socialization and professional development that often derive from permanent entry-level positions. Sasha found herself unemployed several times, and would submit hundreds of applications indiscriminately, ultimately landing additional short-term, temporary clerical positions. Similar to other graduates, Sasha was mystified at her inability to find adequate employment.

*I couldn't find a job. That's something like, I couldn't really understand, I don't know what I was doing wrong... why is it easy for me to do well academically [referencing recent acceptances into multiple master's degree programs] but not do well in the workforce? I couldn't really understand it.*

This was a pervasive theme across graduates' un(der)employment experiences – young adults were shocked at how difficult it is to find a job. At the time of my conversations with these graduates, Adam was about to start a full-time job at a law firm and Sasha was preparing to start a master's program. While they were seemingly on an upward trajectory, the two years each spent underemployed likely set them behind their peers.



## **Discussion**

The fragile value of a college degree in the new economy leads to consequences for underemployed graduates. College graduates who have a difficult time finding adequate employment are struggling to translate the institutional capital of their degree into economic capital in the labor market (Silva 2013). In this chapter, I asked two questions. First, how do graduates interpret and respond to underemployment? Second, how do those interpretation and response strategies buffer or exacerbate the consequences of underemployment? Overwhelmingly, graduates are perplexed at their lack of success in the labor market. Especially for those who excelled as students and majored in Engineering or Computer Science, young adults are shocked at how difficult it is to obtain a job in their desired career field. Graduates' responses to underemployment fall along three pathways that result in buffering the consequences of underemployment, potentially risky approaches, and self-scarring tactics that can exacerbate underemployment. The response strategies available to graduates were shaped by several structural factors, including familial economic resources, narratives about the employability of specific disciplines, and graduates' understanding of the labor market. These findings highlight the importance of considering graduates' own behavior, outside of the workplace, when assessing the consequences of underemployment.

Most research about the scarring effects of underemployment emphasizes penalties within the workplace – how underemployment effects job performance (Feldman 2011), turnover intentions (Maynard et al. 2006), or organizational commitment (McKee-Ryan and Harvey 2011). I expand the concept of scarring

effects beyond firm-oriented costs to examine how college graduates interpret and respond to underemployment, and how certain approaches can be self-scarring by exacerbating the consequences of underemployment.

These findings suggest several places that may be leaky in the college-to-career pipeline. One, graduates often realize after the fact that non-coursework experiences during college were important components of translating their degree into a job. Graduates who did not have internships and individual projects outside of classes are at a disadvantage compared to their peers; this is a challenging disparity to rectify in real time after graduation. At the same time, internships and engagement as a student are not a blanket panacea; even graduates who had done these activities were often un(der)employed after graduation, although they typically recovered – obtaining adequate employment – more quickly. It's important to note that encouraging more internships or outside-of-class activities are neoliberal solutions to structural problems. The *relative education hypothesis* suggests that as greater proportions of a given cohort have a college degree, the return of investment decreases (Horowitz 2018). When more young people are obtaining a college degree, the value is diminished, and *effectively maintained inequality* posits that the advantaged will find ways to secure qualitatively better results (Lucas 2001; Torche 2011). This means that going to class and obtaining the credential is not enough to garner a good job. The bar has been raised because graduates' peers are not only going to class, they are also completing internships, working in professional-track jobs, and participating in other experiences that will bolster their chance of success post-graduation. Structurally, this is about some graduates having the resources to go

to class *and* gain skills that will be relevant for the labor market, which puts them ahead of their peers who are not participating in those optional experiences.

Despite a lack of labor market success, the graduates I talked with had very little critique of the institution or the precarious economy. Instead, young adults blamed themselves for their underemployment, describing ways they should have worked harder or done more as students. This aligns with other studies of unemployed and precariously employed workers, which find that workers emphasize individual entrepreneurialism in response to job insecurity (Doody et al. 2016; Lane 2017; Pugh 2015). While they blamed themselves, graduates were surprised at how difficult it was to obtain a job after graduation. They were perplexed that their achievements as a student did not directly translate into labor market success. Graduates internalizing the blame for a failed college-to-career transition is an additional layer of self-scarring. Instead of blaming a precarious economy or a fractured social safety net, graduates believe that they should have completed more internships or networked more often. Yet structural factors impede access to these opportunities, so graduates may be retroactively perceiving themselves to have more opportunities than were feasibly available. If graduates shifted some of their internalized blame to institutions, this could mobilize collective action to demand structural change.

Normalizing the difficult college-to-career transition may be a simple intervention that could prepare graduates for the real possibility of failure before they achieve adequate employment. This may be especially important when the economy is strong, and graduates have the perception that their peers are smoothly sliding into

career-oriented jobs. During economic recessions, there is often media coverage of high unemployment rate and additional public discourse about the difficulty of new graduates finding jobs (cf. Mangan 2020). When the economy is strong, the common narrative that college leads to a good job is more pronounced.

Several limitations contextualize these results and point to future avenues of scholarship. First, my sample included graduates from a single institution in a very particular labor market. The DMV labor market is both robust and competitive. UMD graduates in the DMV area are competing with many other recent graduates from around the country who are also applying for jobs in the nation's capital. Because of the steady employment offered by government and government-adjacent industries, there are quite a few internship and entry-level positions available. While there are lots of opportunities, the sheer number of recent graduates looking for work in the area means that positions – even for unpaid internships – are very competitive. Graduates are often competing with hundreds of other applicants for a single internship or entry-level position. Anecdotally, some recent graduates I talked with complained that because everyone in D.C. is overeducated for their jobs, they were often competing with master's degree-level applicants for very entry-level positions. About two-thirds of graduates still lived in the DMV area at the time of our interview, and the unique nature of this labor market may not be representative of other parts of the country, where competition is less fierce and it is easier to obtain an entry-level position. Future research should consider how college-to-career experiences differ between local labor markets.

Next, I interviewed class of 2016 and 2017 graduates in the summer of 2019, when the economy was quite strong. Graduates who enter the labor market during an economic recession start off with low pay and their wages remain low ten years later (Oreopoulos et al. 2012). Graduates who are attempting to enter the labor market during economic recessions may be more likely to respond to underemployment by settling for an underemployed job long-term or returning to graduate school in an attempt to bolster their chances of labor market success. With fewer opportunities available, disparities between the graduates who obtain adequate employment and those who do not would increase. On the other hand, underemployment may be more common among a graduate's peer group during an economic recession. *Relative deprivation theory* suggests people compare their employment situation with an imagined standard (Luksyte and Spitzmueller 2011; Merton and Kitt 1950). If underemployment is a common feature among a graduate's social network, they may attribute it to external versus internal factors, which may lessen the internalization of self-blame in response to underemployment. If that's the case, graduates may maintain optimistic job expectations and continue taking steps to pursue their original career goals. Future research should explore underemployment as a network phenomenon, and how it's affected by the economy, in more detail.

Two points of inquiry are outside of the scope of this chapter and are ripe areas for future research. First, distinctions between college majors are often brought up in conversations about the return on investment of a college degree (Aoun 2017; Carnevale et al. 2017; Roksa and Levey 2010; Selingo 2016). I intentionally included students who majored in Engineering and Computer Science in my interview

sampling frame as these majors are especially considered to be low-risk, high-reward by leading to a direct career pathway post-graduation. I found few differences in responses to un(der)employment by college major (see *Appendix 4A*). However, there may be important demographic differences in the un(der)employment response strategies, and subsequent self-scarring, graduates employ. *Appendix 4A* depicts graduate characteristics within each response pathway, and I've noted in the text any themes that emerged pertinent to gender and first-generation students. Future research could do a deeper dive into differences by gender and race (Damaske 2020), first generation and transfer student status, and how college major may influence graduates' trajectories.

Second, my interviews indicate that parental resources – through advisement, connections to jobs, and financial support – play an important role in the college-to-career transition. Almost all graduates I talked with were still on family cell phone plans, paid for by their parents. Similarly, because most of the people I interviewed were in their mid-twenties, health care came up repeatedly. Many were about to age off of their parents' insurance (the Affordable Care Act stipulates children can be on their parents' health insurance until age 26) and were in the process of acquiring their own health insurance. Future research should build on the emerging parental bridging scholarship (Hamilton et al. 2018; Roksa and Silver 2019) to consider how parents exacerbate or minimize existing inequalities as their children graduate college and enter the labor market.

While this chapter focused on how individual graduates perceived and responded to an adverse event, it's important to not lose sight of how the college-to-

career transition can structurally reproduce inequality. There were wide disparities in the range of response strategies available to graduates—some graduates simply had fewer tools in their response toolbox. In a moment when many audiences are questioning the value of a college degree, institutions are under financial strain, and students must take classes online due to a prolonged pandemic, considering the resources available to graduates as they translate their institutional capital to economic capital in the school-to-work transition will be increasingly important.

## Appendix

Appendix Table 4A. Characteristics of UMD Graduates by Underemployment Pathway

	Buffering	Risky	Self-Scarring	Comparison
Interview Sample (N = 60)	12	8	17	21
<b>Major</b>				
Social Sciences (45%)	58%	25%	65%	24%
Arts & Humanities (28%)	42%	50%	12%	33%
Engineering/Computer Science (27%)	0%	25%	24%	43%
<b>Gender</b>				
Women (58%)	67%	63%	65%	57%
Men (42%)	33%	38%	35%	43%
<b>Race</b>				
White (53%)	75%	38%	53%	52%
Black (15%)	8%	38%	12%	10%
Multiracial (13%)	0%	13%	18%	10%
Latinx (10%)	17%	0%	12%	14%
Asian/Pacific Islander (8%)	0%	13%	6%	14%
First Generation (20%)	17%	38%	18%	10%
Transfer Student (32%)	0%	38%	35%	24%
Student Loans (37%)	42%	38%	35%	29%
Completed Internship as Student (78%)	58%	75%	76%	100%
Participated in Study Abroad (27%)	50%	25%	12%	29%

*Note:* shaded cells indicate overrepresented by 5+ percent and patterned cells indicate underrepresented by 5+ percent if respondent demographics were proportionately distributed across pathways. Two graduates did not fit into any of these pathways and therefore are not reflected in the table.



## Conclusion

This dissertation includes three empirical chapters. Chapter 2 uses restricted Monitoring the Future panel data (1976 – 2015) to demonstrate how graduates' perceptions of their job and future job expectations are important mechanisms that shape subsequent career outcomes. I find that graduates who experience underemployment downshift their job expectations, expecting to be underemployed in the future. Perceptions can exacerbate the consequences of underemployment; graduates who view their job as a stepping stone and expect to work their current job most of their life are more likely to expect underemployment in the future. Job expectations matter. Graduates who previously expected underemployment were more likely to be currently underemployed. This chapter contributes to the job expectations and underemployment literature, refining our understanding of scarring effects (Gangl 2006), by illustrating how downshifting job expectations can be *self-scarring* as job expectations are predictive of future job outcomes.

Chapter 3 describes how *effectively maintained inequality* manifests through engagement on campus, which then affects the college-to-career transition and post-graduation employment outcomes. Drawing on 60 interviews with recent University of Maryland graduates, I demonstrate that students who engage on campus – by living in student housing or living learning communities, studying abroad, joining student organizations, and working in professional-track jobs – typically have smoother college-to-career transitions. This context is important for understanding the structural resources graduates have access to as they respond to underemployment.

Finally, in Chapter 4, I show how recent University of Maryland graduates interpret and respond to underemployment. I propose that graduates' responses to underemployment may be *self-scarring* by further exacerbating the consequences of underemployment. Overwhelmingly, graduates are perplexed at their lack of success in the labor market. Graduates' responses to underemployment can be grouped into three pathways: approaches that buffered the consequences of underemployment, risky tactics that sometimes resulted in adequate employment, and methods that were self-scarring because they exacerbated the consequences of underemployment. The response strategies available to graduates were shaped by several structural factors, including familial economic resources, narratives about the employability of specific disciplines, and graduates' understanding of the labor market. These findings highlight the importance of considering graduates' own behavior, outside of the workplace, when assessing the consequences of underemployment.

## **Discussion**

This dissertation illuminates how inequality is replicated during the college-to-career transition by graduates' self-scarring decisions and contributes to our understanding of economic mobility through returns on a college education. I advance the literature on underemployment scarring by extending the context from workplace consequences to individual decision-making, unpacking how and why young people make choices related to their post-graduation employment outcomes. This project intersects multiple sociological subfields. Sociology of education scholarship highlights how inequalities manifest during college (cf. Jack 2016; Stuber 2011). While those studies conclude by speculating how inequalities influence post-

graduation employment outcomes, few actually track how college experiences are linked to job-related outcomes after graduation. Similarly, we know from sociology of work and occupations that early career outcomes are important and can set young adults on a particular trajectory after graduating from college (cf. Abel et al. 2014), but there are few studies that link college and career experiences. This project fills an empirical gap by examining the college-to-career transition as a standalone point of analysis.

I show that preexisting inequalities – in economic resources, first generation student status, and social and cultural capital – are often perpetuated by underemployment. Graduates generally blamed themselves in the wake of a failed college-to-career transition. We might expect them to blame the institution or the economy, but the graduates I talked with overwhelmingly identified that they should have worked harder in college, done more internships, or networked more often. In many ways this is an additional element of self-scarring since graduates internalize the blame for these structural problems.

Chapter 1 outlines a number of theories that help explain why inequality is replicated during the college-to-career transition. Disentangling the relevance of these theories as it relates to underemployment and inequality is complex. For example, human capital theory suggests that college graduates should have better employment outcomes, on average, than workers without a college degree. From this standpoint, young people should be encouraged to go to college to bolster their opportunities. However, my findings show that there is inequality *among* college graduates, even though as a group they may be better off than non-graduates.

This project finds empirical support for the *relative education hypothesis* and *effectively maintained inequality* (Horowitz 2018; Lucas 2001; Torche 2011). The relative education hypothesis posits that the value of a bachelor's degree diminishes when a higher proportion of one's peers also have a college degree (Horowitz 2018). When more people obtain a bachelor's degree, young adults must find other ways to stand out to potential employers, which results in effectively maintained inequality (Torche 2011). As I show in Chapter 3, graduates from more advantaged backgrounds acquire career-relevant cultural and social capital during college through campus engagement, which sets them apart from their peers and leads to smoother college-to-career transitions. Passing classes and obtaining a bachelor's degree is not enough to garner a good job. The bar has been raised because graduates' advantaged peers are not only going to class, they are also completing internships, working in professional-track jobs, and participating in other experiences that will bolster their chance of success post-graduation. Underemployed graduates are often encouraged to complete additional internships, maintain optimistic job expectations, or conduct more informational interviews as a way to network. However, these individual solutions will not address the systemic issue of the diminished return on a college degree as more people have one (Horowitz 2018).

## **Directions for Future Research**

### *Gender and Race*

This project sets the foundation for several areas of future inquiry. First, there are likely important gender and race differences in experiences of, and responses to, underemployment. Chapter 2 explores how responses to underemployment in the

form of lowering job expectations differs by gender and race. While I was attuned to gender and race differences in my interviews with UMD graduates, the sample size is not large enough to make meaningful comparisons. Future research should engage with gender and race as key dimensions that likely influence the college-to-career transition and self-scarring.

One particular gender-related focus of future research could be the role of relationships and family-planning in graduates' early career experiences. Among my interview respondents, just over half were in a relationship (N = 33, 55 percent of sample). Of those in a relationship, half (49 percent) were not living together. Quite a few graduates were in long-distance relationships with their partners. Of the remaining half who were living together, one third (N = 11) were cohabiting and 20 percent were married (N = 6). None of the graduates I talked with had children, and most described starting a family as an abstract long-term goal. Several articulated that their immediate five-year plan was about their career and education, not having kids.

Among graduates who expressed an interest in having children, only women articulated concerns about balancing work and family. These themes would likely vary significantly if I interviewed graduates five years later in life. I talked with graduates in their mid-twenties. The role of partners and children would likely be more pressing for adults in their late twenties and early thirties (Damaske 2011; Gerson 2010, 2017). Future research could explore how gender and family planning intersect with young adults' career decisions.

### *Self-Scarring as a Reasonable Response to Economic Precarity*

Second, while I argue that graduates exhibit self-scarring behaviors in response to underemployment, there may be other cognitive dimensions influencing this behavioral response. Graduates may be realistically altering their employment goals in response to an unequal labor market and fractured safety net—perhaps lowering job expectations is a coping mechanism. To avoid cognitive dissonance, graduates must shift their stated goals to align with their reality. It's also possible that there are significant selection mechanisms at play that I cannot account for in my data. For example, perhaps the graduates who appear to self-scar had lower self-efficacy and lower job outcomes prior to graduation, or even before starting college. Future research should engage with occupational psychology to understand the cognitive dimensions that may lead to particular behavioral responses during the college-to-career transition and in the wake of underemployment.

### *Identifying a Robust Measure of Underemployment for Recent Graduates*

Finally, as outlined in Chapter 1, underemployment is a tricky concept to measure. While I use several sources to triangulate a measure of underemployment in Chapter 2, the broad occupational categories in the *Monitoring the Future* data may be masking important elements of underemployment. College graduates are new workers who have little labor market experience compared to seasoned employees. There are many jobs for which recent graduates are realistically unqualified. An ideal measure of underemployment would take into account appropriate entry-level jobs for recent graduates and differences by industry. For example, being an Office Manager at Google is a qualitatively different experience than being an Office Manager for a

local small business. Industry differences have implications for occupational prestige, subjective interpretations of underemployment, and viable career pathways to move up within a given field. Future research should use, or create, data that include detailed employment information to delineate relevant entry-level positions for recent graduates. Because of credential inflation, suitable entry-level positions have changed over time, but ideal data would encompass historical information. This more robust measure of underemployment would refine our understanding of how graduates interpret and respond to underemployment.

### **From Theory to Practice: Implications for Policy Makers and Practitioners**

This project raises several questions for institutions of higher education, policy makers, and employers who seek to hire recent graduates. First, Higher Education is increasingly scrutinized as the coronavirus pandemic has strained institutional budgets and traditional elements of the college experience are unavailable. If students are going to be sitting in their childhood bedrooms taking online courses, what is the value of that degree? The pandemic provides a ripe opportunity to consider how colleges and universities can intervene to prevent underemployment, or at least reduce the negative consequences of underemployment.

One solution is to require institutional engagement by integrating it into the curriculum. Students, especially those from working-class backgrounds and who are first generation students, are more likely to engage on campus when it is required (Stuber 2011). If engaging in co-curricular experiences is obligatory as part of coursework, this will reduce effectively maintained inequality because everyone will be participating, not just students who have prior knowledge and resources.

Especially if this requirement is embedded early—in freshmen seminars, for example—it socializes students to continue engaging throughout their college career. This project identified some of the challenges transfer students face in engaging in activities that bolster career-relevant social and cultural capital. Engagement opportunities should also be integrated in upper-level courses to ensure transfer students also benefit from required co-curricular activities.

Institutions should also de-emphasize college major as it relates to education-occupation match. Majors that have a direct career pathway are often held up as the solution to ensuring college graduates are adequately employed. My findings show that underemployment is a structural problem that transcends discipline. Some of the graduates who had the most difficult time in the wake of underemployment were engineering and computer science majors, who had been told that their degree was very marketable. When parents, high school counselors, advisors, faculty, and other stakeholders tell students that if they major in a particular discipline they will get a good job, it can be even more upsetting for graduates who do not immediately obtain adequate employment. The narrative that *only* majoring in computer science or engineering would lead to a good job also led to some complacency. As noted in Chapter 3, one respondent described the “engineering delusion” in which students think simply graduating with that degree is enough, when in reality employers expect additional experience outside of the classroom.

Higher Education stakeholders can also normalize the challenges of college-to-career transitions. My interview participants frequently commented on how enjoyable and refreshing it was to talk about their experiences of graduating and



transitioning into the workforce. Many graduates thought they were the only ones struggling, and wished this difficult transition was discussed more often. If students are mentally prepared for the fact that many graduates take some time to find adequate employment, there might be less self-scarring because it would not be such a shock – leading to lowered job expectations – if they do not immediately obtain a good job.

However, normalizing difficult college-to-career transitions is complicated because it directly conflicts with university recruitment strategies. Financial strain, exacerbated by the pandemic, means that institutions will be eager to attract potential students to maintain enrollment numbers (and tuition dollars). Institutions recruit students partly by touting the high proportion of graduates who are gainfully employed, and there is considerable pressure to maintain that narrative when budgets are tight. The risk of disclosing the tangible challenges many graduates face could be collectivized through a multi-university consortium that provides accurate information to students about both the value of a college degree and the reality of what it means to translate that degree into a job. As colleges and universities make the case to prospective students and their families that enrolling in college is worth the cost, it's imperative that we consider how to ensure all students see a return on their investment.

Second, 60 percent of college graduates take out student loans to pay for their degree (Board of Governors of the Federal Reserve System 2020). Given the disparities in who needs to take out loans and who has parents who can pay for their education, graduates who cannot obtain adequate employment disproportionately bear

the cost of limited economic return on their college investment. In an attempt to reduce student loan burden, students are often encouraged to attend Community College for two years and then transfer to a four-year institution. Public policies increasingly encourage this by providing free or highly subsidized associate's degrees (Carnevale, Sablan, et al. 2020; Goldrick-Rab 2016; Grand Rapids Promise Zone 2020). While reducing student loan debt and increasing access to higher education are incredibly important outcomes, these policies may have the unintended consequence of replicating inequality. When students transferred to UMD, they were more likely than their peers who started as freshmen to have less campus engagement and continue living at home. These disparities in institutional engagement extended to college-to-career transitions, where more advantaged students had better employment outcomes. Policy makers should consider how community colleges could bolster career-relevant capital-building opportunities, and how transfer students can be integrated into robust college experiences when they arrive at four-year institutions.

Third, research about economic mobility has long viewed college as the “great equalizer.” This project shows that inequalities in pre-college resources are often replicated in the college-to-career transition, which is when graduates are attempting to leverage their academic credential in the labor market. If college is *not* a tool for mobility, how do economic mobility pathways operate in this environment? One of the silver linings of the pandemic is the opportunity to increase access to opportunities in creative ways. For example, UMD hosted its annual career fair online this fall and had a great response from both employers and students. Instead of spending all afternoon in the student center waiting to talk to a particular employer,

students could log on for 10 minutes and have a direct video call with an employer. Both colleges and employers are evolving during this public health crisis. Employers are recruiting for virtual internships, and this could potentially open opportunities to students who may not have been able to participate previously because of geographic or time constraints. Of course, participating virtually still requires a stable internet connection and access to a computer, but virtual opportunities may eliminate other barriers. It will be important to think about what professional development and relationship-building looks like in an online environment, when some of the traditional methods of socializing new employees are not available. This is an exciting time to be creative about what robust college-to-career experiences look like in a virtual environment.

Finally, employers are also important stakeholders in the college-to-career transition. One small action that could have a big impact: explicit job descriptions that note organizations' willingness to hire recent graduates for a particular position. Many of the graduates I talked with described their struggle to decipher job descriptions in determining whether they were appropriate entry-level positions or not. Accurately interpreting job descriptions is a learned skill that comes from time in the workforce and familiarity with particular industries. Just as an increasing number of job advertisements include the salary range as a commitment to transparency and equity, job descriptions could note that the position is a good fit for recent graduates. Of course, it is difficult to dictate who employers should hire. Companies seek to hire the highest caliber talent they are able to recruit. Yet companies are also increasingly embracing equity as part of a "triple bottom line" and Corporate Social Responsibility

plans. The relatively small step of highlighting job applications for new graduates could ease the college-to-career transition by helping graduates clearly identify appropriate positions.

This project examines how people who did all the right things to achieve economic security – attend and graduate from college – respond in the aftermath of a failed college-to-career transition. This dissertation was written during an ongoing pandemic, a national reckoning with racial injustice, and a presidential election. This fraught time accentuates the importance of examining inequality *among* college graduates, ensuring all graduates have access to a return on investment of their degree.

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