As the world interns: The impact of identity and social, economic, and cultural capital on college student internship engagement

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AS THE WORLD INTERNS: THE IMPACT OF IDENTITY AND SOCIAL, ECONOMIC, AND CULTURAL CAPITAL ON COLLEGE STUDENT INTERNSHIP ENGAGEMENT

A Dissertation Presented

by

Amanda Chase

to

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ABSTRACT

Internships have become a critical credential for employment, and college students with internship experience reap significant gains compared to their non-interning peers. Students who have engaged in internships are more likely to find work post-graduation, earn higher starting salaries, have better retention and engagement while still in college, and are more engaged in their workplaces many years after their internship experience has concluded. Companies who hire interns benefit from a steady pipeline of new talent, cost-savings in the hiring process, and employees who stay longer and are more engaged. Despite the significant advantages of internships, limited information exists about the overall prevalence, the legal parameters, and even the exact definition of an internship. Perhaps most conspicuously absent is a discussion about access to internship opportunities. Are internships an option for all undergraduate students? Do all students engage in internships at the same rate, regardless of the student’s income level, family connections, or other aspects of their identity?

The current study examined the identities and cultural, social, and economic capital held by University of Vermont undergraduates who participate in internships, compared to the identities and cultural, social, and economic capital of non-interning students. This ex post facto study uses 2017 National Survey of Student Engagement responses from senior students the University of Vermont, as well as institutional data. A t-test and chi square analysis were used to compare means of interning and non-interning groups, and five binary logistic regression analyses were used to predict internship participation.

Several factors significantly differed between interning and non-interning students. While all five regression models significantly predicted internship engagement, low statistical power limits the real-world significance of regression results. GPA and state residence were the most salient individual predictors of internship participation, demonstrating that for every 1.0 increase in GPA a student was 2.74 times more likely to engage in an internship, and that students from out of state were 2.20 times more likely to intern compared to participants from the state of Vermont. Explanations for the results are offered as well as implications for policy and practice to develop more equitable internship participation amongst all students.
DEDICATION

To Brit: I could not have done this without you by my side. I can’t wait for our next adventure.
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Though my dissertation has only one author, it took the support of many different people to complete this endeavor. First and foremost, I need to thank Jay Garvey, my advisor, mentor, coach, cheerleader, and guide. Jay set a high bar for me and then provided the support I needed to clear it. I often walked into his office feeling overwhelmed and walked out feeling empowered. His patience, guidance, humor, listening ear, and encouragement to always “keep going” made this enormous task achievable.

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My research emphasized the salient point that family support and expectations around education make a huge difference for what people can achieve. My parents and brother have always communicated to me that education is paramount and that I can do anything that I set my mind to. Thank you for always supporting me.

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# TABLE OF CONTENTS

DEDICATION ......................................................................................................................... ii

ACKNOWLEDGEMENTS ........................................................................................................ iii

LIST OF TABLES ..................................................................................................................... vii

LIST OF FIGURES .................................................................................................................. viii

CHAPTER ONE: INTRODUCTION ............................................................................................. 1
  1.1. Reflections from my Desk: Gloria and Marcus ......................................................... 1
  1.2. Background .................................................................................................................. 6
  1.3. Study Rationale and Significance ............................................................................. 8
  1.4. Researcher Positionality ........................................................................................... 9
  1.5. Research Purpose and Questions ......................................................................... 12
  1.6. Definitions of Key Terms ....................................................................................... 13

CHAPTER TWO: REVIEW OF THE LITERATURE ..................................................................... 14
  2.1. A Fog Around History, Definition, and Payment of Internships .......................... 14
  2.2. Benefits of Internships ............................................................................................ 21
    2.2.1. Personal and Developmental Benefits for Students ........................................ 21
    2.2.2. Effects on Students’ Collegiate Success ......................................................... 23
    2.2.3. Influences on a Graduate’s Hiring Process andStarting Salary .................. 24
    2.2.4. Long-Term Work Engagement Gains for Students ..................................... 26
    2.2.5. Benefits for Companies ................................................................................. 27
  2.3. Internship Prevalence and Trends ......................................................................... 29
    2.3.1. Paid vs. Unpaid ............................................................................................... 32
    2.3.2. Rationale for Unpaid Internships ................................................................... 33
  2.4. Issues of Access: Using Bourdieu as a Theoretical Framework ........................... 36
    2.4.1. Limits to Bourdieu ......................................................................................... 40
  2.5. Research Questions ................................................................................................. 42
  2.6. Concept Map and Significance of the Current Study ............................................ 42

CHAPTER THREE: METHODOLOGY ....................................................................................... 43
  3.1. Purpose Statement .................................................................................................... 44
  3.2. Study Constructs and Variables ............................................................................. 44
  3.3. Overview and Research Design .............................................................................. 48
    3.3.1. Research Questions ......................................................................................... 48
    3.3.2. Hypotheses ..................................................................................................... 48
    3.3.3. NSSE as a Survey Instrument ....................................................................... 49
  3.4. Institutional Overview ............................................................................................. 50
  3.5. Population and Sample ........................................................................................... 53
  3.6. IRB Approval & Data Acquisition ......................................................................... 54
  3.7. Data Preparation ..................................................................................................... 54
LIST OF TABLES

Table 1: Definition and operationalization of variables ........................................45

Table 2: Matrix of Pearson's Correlation Coefficient between independent variables ....59

Table 3: Categorical demographic characteristics of participants (N = 350) ............65

Table 4: Distribution of continuous independent variables ....................................66

Table 5: Indicator differences between individuals who engaged in an internship and those who did not ........................................................................................................67

Table 6: Chi square analysis of categorical variables and internship engagement ....70

Table 7: Binary logistic regression of all individual factors predicting internship engagement ..................................................................................................................73

Table 8: Binary logistic regression of theme one: Identity variables .......................75

Table 9: Binary logistic regression of theme two: Social capital variables ...............76

Table 10: Binary logistic regression of theme three: Economic capital variables ....77

Table 11: Binary logistic regression of theme four: Cultural capital variables .........78

Table 12: Summary of all logistic regression models .............................................79
LIST OF FIGURES

Figure 1: Model showing the hypothesized impact of a student’s identity, social capital, cultural capital, and economic capital on their participation in an internship......43
CHAPTER ONE: INTRODUCTION

When conducting research, it is essential to remember that our participants are real people, and that our analysis elucidates important aspects of their experiences. I begin this dissertation with an illustration of two students whose journeys personify the focus of my research.

1.1. Reflections from my Desk: Gloria and Marcus

In my role as the internship coordinator and a career counselor at the University of Vermont (UVM), I worked with a student named Gloria, who was seeking an internship. Gloria was a history major and had just returned from Glasgow, Scotland, where she had spent the summer abroad. She loved her experience working and traveling internationally and told me that she learned about another country and culture while also gaining valuable professional skills. Gloria worked as an unpaid intern with one of Glasgow’s Business Improvement Districts (BID). Now in the fall semester of her senior year, Gloria was seeking another internship to further strengthen her resume before she graduated. I worked with Gloria as she prepared her application for an internship in Burlington Vermont’s Church Street Marketplace. Burlington’s own BID needed an intern, and Gloria’s closely-related experience in a major international city made her a strong candidate for the position. The Church Street Marketplace internship paid twelve dollars an hour, which would be a welcome bonus for Gloria (many other internships do

1 Gloria is a pseudonym, with her experience being an amalgamation of several students with whom I have worked.
not offer compensation). Once Gloria had a second internship with a focus on BIDs, she would be a strong candidate for full-time jobs in this field.

Gloria’s experience in Scotland strategically positioned her to gain subsequent valuable experience. However, Gloria’s internship in Scotland was not something that happened by chance. Gloria registered for her internship placement through a private company that matches students to internships all over the world. With financial support from her parents, Gloria paid the internship placement company to connect her with the 12-week internship at the Business Improvement District in Glasgow. The internship did not and cannot offer compensation for students’ work in this program, since international interns lack necessary work visas to be paid. Gloria also had to pay out-of-pocket for her flights to and from Scotland, and for 12 weeks of housing, meals, and commuting costs. A 2015 *New York Times* article profiled an American student doing a similar internship in Edinburgh, which cost the student a total of $16,000 for a ten-week work experience (Greenhouse, 2015). I suspect that Gloria incurred similar costs for her international internship.

When I asked Gloria what had contributed to her career success thus far, she did acknowledge that she was lucky to have her experience in Scotland. She also explained that she had worked hard at her internship and been particularly savvy with her networking skills. Though she may not recognize or acknowledge it, Gloria’s upper-middle-class background likely set her up for success, too. Her parents were both college-educated and helped guide her through her undergraduate experience, and she developed
the ability to navigate educational and workplace systems in ways that benefitted her greatly.

In contrast to Gloria, I also worked with a student named Marcus, a sophomore chemistry major who was the first in his family to attend college. Marcus grew up in a small, working-class city in Vermont that never quite rebounded from its industrial decline in the 1950s. Marcus achieved high grades in his small high school of 330 students. He is academically inclined, though he did not have the opportunity to take Advanced Placement (AP) classes in high school, because his district did not offer any. He enjoyed his high school chemistry class and received high grades, making it a natural choice for him to major in chemistry in college.

Upon entering UVM, Marcus struggled in college-level courses. His under-funded high school had not prepared him as well as the high schools of his peers, and he was surprised by the rigor of his classes. Many of Marcus’ classmates had already taken AP Chemistry in high school, but Marcus did not have the same foundations in the subject.

As a first-generation college student (meaning that neither of his parents had the experience of going to college), Marcus also was not familiar with some potentially helpful campus resources, like free tutoring, his professors’ office hours, or the on-campus writing center. On top of difficult coursework, Marcus also had a work-study job.

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Marcus is a pseudonym, with his experience being an amalgamation of several students with whom I have worked.
through his financial aid package. He worked ten hours a week in a school dining hall, serving food and washing dishes. On weekends, he often picked up an eight-hour shift at Lowe’s, where he had previously worked as a high school student. The extra money helped Marcus pay for his gas and textbooks.

Marcus told me that he was just managing to scrape by academically and financially. Had he more time, he said he would be interested in participating in extracurricular activities, like intramural basketball or the debate union. Other activities of interest like the “ChemCats” club or the Biochemistry Society would help Marcus with his professional development by giving him access to mentoring and strong experience to list on his resume. However, Marcus did not have anyone to guide him to these potentially helpful groups, and even if he had wanted to join, he needed to spend all of his free time studying in order to pass his classes.

Marcus was also interested in pursuing a chemistry internship or research opportunity, but they are extremely competitive and often unpaid. Many of the internships and research positions also require recommendation letters. Marcus’ supervisor in the dining hall would be willing to write him a recommendation, but this would not hold as much weight as a recommendation from a professor. Because Marcus’ classes are all greater than 50 students, he has not yet developed a close relationship with any faculty, nor has he had the time to meet his professors in their office hours. Marcus was not even aware that I was available as a resource until he overheard someone talking about the “internship coordinator,” and this was well into his sophomore year.
I met Marcus as he was preparing his internship application for a local laboratory that provides drug-testing services. The internship is one of the few chemistry-related opportunities in our area, and one of the only ones that is paid. Marcus had never applied to a professional position before, and needed significant support to write a resume, craft a cover letter, and prepare for an interview. He was nervous about coming to the Career Center’s drop-in hours and seemed intimidated about asking for help. Marcus and I talked about how to anticipate and assertively answer interview questions, how he should introduce himself, what clothes to wear to his interview, and how to present a firm handshake.

Though Marcus was an intelligent, earnest, and hardworking student, I knew that his chances of receiving an internship offer were slim. Other peers applying for this internship would likely have higher grades, better recommendations, prior experience, more networking connections, and higher levels of confidence than Marcus.

Though Gloria and Marcus are both hardworking, intelligent students at the same institution, they have had very different access to career development opportunities and will likely have very different experiences navigating the professional world after graduation. Gloria will be a strong candidate who will stand out in a job search. Marcus will be one in a sea of Marcuses: a student with a college degree, average grades, and minimal extracurricular involvement.

Most students do not have access to the types of resources and experiences that Gloria has had. Although hers is a glowing example of student internship success, most students would never be able to afford that opportunity. The sad reality is that not only
will most other students never have the chance to gain that kind of international internship experience, but they also would not be able to compete with the other Glorias of the world. Another student could have benefitted from the internship at the Church Street Marketplace and may have desperately needed one of the few paid internship opportunities available, but they would not have been able to offer the employer the same kind of skills or experiences on their resume. Gloria’s circumstance is an example of the compounding effects of internship inequity, where privilege begets privilege.

In short, though internships provide useful experience and employment advantages, participation may be limited to those with the economic and social means to pursue them. This dissertation seeks to examine the differences in identities and cultural, economic, and social capital between students who intern compared to those who do not. When comparing students with internship experience against those without internship experience, are there significant differences in cultural, economic, and social capital, or differences in the identities held by the two groups? In essence, who participates in internships?

1.2. Background

In the novella, *Beasts*, one of Joyce Carol Oates’ characters makes the derisive observation that “the distinction between ‘assistant’ and ‘intern’ is a simple one: assistants are paid, interns are not. But of course interns are paid, in experience” (2003). Despite the fact that this remark discounts the genuine learning that can happen in an internship setting, the character has a valid point: The concept of an internship (especially an unpaid one) is murky. Yet, as a society we have come to expect that the most low-
ranking workers should make significant sacrifices, like foregoing a paycheck, just to get a foot in the door.

Internships are just one way that students can gain valuable experience while still in college. In addition to pursuing academic learning within the classroom, college students are frequently encouraged by their parents, faculty, and other college personnel to engage in experiential education opportunities that happen outside of the confines of the university. Activities like research, study abroad, service learning, and internships complement theoretical learning, and can provide students with the opportunity to put their abstract knowledge into practice (Kuh, 2008). Internships in particular are a type of experience that has exploded in popularity over the last three decades, with students, universities, and employers all highlighting the importance of this type of involvement. Internships started to expand after the economic crash in 2008, with websites emerging like “The Intern Queen” (Berger, 2017), run by a student touting 15 internship experiences over a four-year period. The media hypes the importance of the summer internship, and online publications produce articles with urgent titles such as, “College Students: You Simply Must Do an Internship (Better Yet: Multiple Internships)!” (Hansen, 2009) and “Starting College? Think About Internships Now” (Merisotis, 2018).

An internship is becoming a more and more critical credential, with most employers wanting their new hires to have completed at least one internship before beginning an entry-level job (National Association for Colleges and Employers, 2016). Recent graduates with collegiate internship experience are more likely to find work and
command higher starting salaries, demonstrating the fundamental importance of these experiences (Day, 2016; Sagen, Dallam, & Laverty, 2000).

Despite the emphasis on internships, limited information exists about the overall prevalence, the legal parameters, and even the exact definition of an internship. Perhaps most conspicuously absent is a discussion about access to internship opportunities. That is to say, are internships an option for all undergraduate students? Do all students engage in internships at the same rate, regardless of students’ income levels, family connections, or other aspects of their identities? Questions of internship access and equity have rarely been discussed in prior research. As many employers, colleges, students, and even parents push for internships and emphasize the crucial nature of these experiences, each of these groups must ask the question: Do all students participate in these opportunities equally?

1.3. Study Rationale and Significance

This topic holds significance for several constituent groups. At this moment, internships are heavily promoted by both universities and employers. Indeed, the university created my current professional role in 2013 because of an increased focus on internships. Students and parents also eagerly seek internship opportunities, understanding the importance of this kind of experience in the post-graduate job search. From a regulatory and policy perspective, internships have mostly avoided scrutiny. Unpaid internships have been challenged in several dozen court cases (Suen & Brandeisky, 2014), but the number of lawsuits is almost negligible considering that experts estimate 50-75% of all college students (or upwards of 13 million students)
complete an internship during their undergraduate experience (National Association for Colleges and Employers, 2016; National Association of Colleges and Employers, 2015b; National Survey of Student Engagement, 2017; Perlin, 2012; Saltikoff, 2017).

Few studies have examined inequities of internships, and indeed, the lack of scrutiny may be what allows an inequitable system to flourish. Frenette (2013) noted that a degree of ambiguity “plays an important role in producing and maintaining the intern economy” (p. 364). Several opinion and newspaper articles have attempted to call attention to inequity in internships (Broadbridge & Fielden, 2015; Gamerman, 2006; Greenhouse, 2015; Harrington, 2018; Noah & Glaser, 2009; Shellenbarger, 2009), but few peer-reviewed articles exist on the topic (Allen, Quinn, Hollingworth, & Rose, 2013; Bathmaker, Ingram, & Waller, 2013; Burke & Carton, 2013; Grant-Smith & McDonald, 2017; O’Connor & Bodicoat, 2017; Siebert & Wilson, 2013).

1.4. Researcher Positionality

My academic and professional interests have always focused on students’ significant life transitions, and the support and preparation that help students adjust to those changes. While earning a bachelor’s degree in psychology at Hamilton College, I conducted a senior research thesis on how undergraduates’ participation in Hamilton’s wilderness pre-orientation trips affect student adjustment to college. I later pursued my master’s degree in counseling at the University of Vermont, aiming to bolster my applied skills in supporting students through challenging life transitions. My professional work in school counseling, followed by college admissions, and now career counseling/internship coordination has all continued to center on working with students through significant life
changes. I work with students as they prepare for, and then undergo transitions to the working world. I view my efforts on internships as a tool that can help ease students’ progression into professional work.

I recognize that much of my own professional success is a direct result of the opportunities that I have had access to, and I want to ensure that kind of access for all. I have been able to explore and test many of my professional and educational interests through experiential education opportunities like research and an internship, which I believe set me up to succeed professionally and personally. Though it was not a traditional internship, I served as an Emergency Medical Technician (EMT) in high school and college. This unpaid position allowed me to gain skills, bolster my resume, and test out a field in which I was interested. I now realize that volunteering as an EMT likely saved me from taking errant steps toward a lifelong career in healthcare. I had the privilege of exploring a career path and then deciding that it was not for me. Another internship, this one minimally paid, allowed me to help run Hamilton College’s wilderness pre-orientation program one summer. Whereas EMT work helped me understand what I did not want to do professionally, the wilderness pre-orientation internship clarified my interests in working with young adults during times of transition.

I recognize that a large part of why I was able to pursue these internship opportunities is because of my socioeconomic circumstances. My parents supported me financially while I was in college, which provided me with ample time and energy to explore and evaluate my interests. Going back to my introduction, I was more of a Gloria
than a Marcus: I could consider every opportunity a viable option, whether or not it was paid.

Though some of the social identities I hold (like being a woman and being gay) may put me in a marginalized position in society, by and large I hold privileged identities that bestow on me advantages in the world: I am a White, cisgender, married, able-bodied, non-religious American who holds a master’s degree and who grew up in an upper-middleclass household where education was of utmost importance. The identities and experiences I hold all influence my research perspectives and values.

My fundamental beliefs that shape my views primarily connect to human potential and education. I believe that all people have value and can contribute to society and the common good. I believe that education is a right that all people should have access to in order to maximize their abilities and contributions to society, and that social justice is the method for how society can value all people and ensure that everyone has access to what they need to thrive.

As I began to explain in the beginning of Chapter One, my professional role as the University of Vermont’s internship coordinator also influences my research perspectives. I have served in my position since 2013 and during that time I have worked with hundreds of students and alums in a career counselor capacity. Many of those people met with me to find and secure internship opportunities. Another part of my position is setting up internship processes and procedures across the University and beyond: I advise faculty who teach academic internship courses, confer with risk management and legal professionals, and consult with internship colleagues at other universities across the
United States as we develop programs and best practices. I also work directly with employers who seek to establish internship programs and recruit students.

As part of my professional role, I have also had the opportunity to develop an internship scholarship program that provides funding for students who do unpaid summer internships. Each year I read dozens of scholarship applications from students interested in pursuing meaningful, career-relevant professional opportunities, but who state that they cannot afford to forego a salary and pay for housing, food, and transportation costs out-of-pocket. The university is lucky to have funding to award about 50 scholarships each year, though there still are dozens of students who apply and do not receive funding. I think about those students a great deal.

This dissertation addresses issues of equity and engagement in internship opportunities, and I realize that employers are sometimes seen as the villains in the story. I should note that nearly every employer with whom I speak with wants to do the right thing and is just trying to survive a competitive landscape (the same as the students). Employers often describe their internship programs as a way for them to “give back” to students and seek to mentor the next generation of professionals in their fields. It is my perception that employers do not set out to exclude certain students or create inequality: They are one part of a complex system.

1.5. Research Purpose and Questions

The purpose of this study is to examine the identities and cultural, social, and economic capital held by University of Vermont undergraduates who participate in
internships, compared to the identities and cultural, social, and economic capital of those who do not participate in internships.

My research questions are as follows:

1. Do students’ identities and/or economic, social, and cultural capital indicators differ depending on participation in an internship?
2. What are the factors that significantly relate to undergraduate students’ participation in internships?

1.6. Definitions of Key Terms

**Internship**: An internship consists of work done in a professional environment; a connection from applied learning to academic/theoretical knowledge; and experience that is valuable for the student, and this experience may in fact be more valuable for the student than for the employer. As I will explain later, I generated this definition based on criteria from expert sources in academia, professionals in this field, and policymakers (Kuh, 2008; National Association of Colleges and Employers, 2011; Sweeney, 1996)

- **High-impact practices**: A set of ten meaningful learning experiences that promote deep learning and student engagements (Kuh, 2008). Internships are one type of high-impact practice.
- **Social capital**: Resources linked to one’s network of relationships (Bourdieu, 1986).
- **Cultural capital**: One’s intellectual skills and knowledge (Bourdieu, 1986).
- **Economic capital**: Money, property, and other forms of economic wealth (Bourdieu, 1986).
CHAPTER TWO: REVIEW OF THE LITERATURE

I begin this literature review with an overview of the enigmatic history, definition, and legal requirements of internships, and demonstrate the obscure nature of this topic. Next, I will outline internship benefits, establishing the importance of internships for the individual intern and the organizations who host them. Subsequently, I examine the prevalence of internships in the United States and the conditions that allowed for internships (particularly unpaid internships) to explode in popularity. Next, I will utilize Bourdieu’s (1986) capital theory as a construct for how students participate in internships and introduce a theoretical/conceptual model for the current study. Lastly, I will end the chapter by discussing the significance of the current study.

2.1. A Fog Around History, Definition, and Payment of Internships

Internships began during the Industrial Revolution in the United States, and then began to expand rapidly. Though frustrating to navigate, the patchy information about internship growth over time, the struggle to produce a clear definition of an internship, and lack of knowledge about internship compensation all create a microcosm that demonstrates the lack of transparency and information around internships. After providing examples of the obscurity of this topic, I offer a definition of internships at the end of this section.

After the Industrial Revolution began and companies needed workers with more specialized training, several American colleges began addressing employment needs through cooperative education programs (called “co-ops” for short) (Heinemann, 1981). The University of Cincinnati offered the first co-op programs in engineering and business
in 1911, and other collegiate programs began to emerge thereafter (Keeton, 1977). In a collaboration with universities, engineering companies offered paid experiences for students to work with employers in a hands-on setting, which would complement students’ theoretical classroom learning and supply local companies with energetic, low-cost labor. In the years following, co-ops spread to colleges throughout the U.S. and expanded into other disciplines (Heinemann, 1981).

A level of obfuscation has always been present regarding internships. Even when Keaton (1977) was asked to collect a history of experiential education for the *Journal of Liberal Education* 40 years ago, he noted, “to the best of my knowledge there is not available even a reasonably useful overview of the scope and nature of experiential education in the United States today” (p. 259). Comprehensive information about internships is still inadequate four decades later (Perlin, 2012).

Though information on internships is lacking, Keeton (1977) cited one statistic showing that only 100 higher education institutions had cooperative education programs in 1960. Over the course of 17 years that number had grown tenfold, with 1,030 schools having co-op programs at the time of his writing. Keeton (1977) also discussed internship programs in his report, estimating 1,000 formalized internship programs that year.

Keeton acknowledged that much of the difficulty around assessing numbers of experiential learning is that no one has offered clearly defined language. He wrote, “[the lack of information] results in part from the absence of shared conventions on the usage of terms” (1977). A similar point is made several years later in a paper titled “the History and Rationale for Experiential Learning” (Little, 1981). Little wrote that types of
experiential education “have particular names (internship, cooperative education, service-learning, work-learning, practicum, field work, field study), but any effort to distinguish one from another requires so many exceptions that the typology quickly breaks down” (p. 15). Though it is difficult to define internships today, this struggle is certainly not just a recent phenomenon.

In addition to the lack of a clear definition for internships and other types of experiential learning, there has also been a lack of clarity about compensation for these types of experiences. Should students receive payment for the work that they complete during their co-op or internship? Or, since the student is still learning and not yet fully proficient, might the student’s training be a substitute for a wage?

The lack of clarity and standards about intern pay even led to significant rifts amongst staff coordinating experiential education programs at various colleges. In cataloging the history of the Cooperative Education Association, Dubé and Miller wrote about some of the tension that emerged around co-op payment and program standards in the 1960s. As cooperative education programs began to expand, disagreements emerged within members of the Cooperative Education Association, a professional organization of staff members who coordinated co-ops. New co-op programs for liberal arts students were emerging, but they were considered a significant departure from the engineering and business co-ops that were the founding models of cooperative education. One particular area of tension was that some of the new liberal arts programs did not pay students a wage. Disagreements emerged between the Cooperative Education Association and a similar sister professional organization called the Cooperative Education Division.
of the American Society of Engineering Education (CED). CED “believed too many concessions were made to the purist model to permit these new programs to call themselves cooperative education…some of the career related employment was considered too far-fetched for many CED members. Sometimes, the jobs were not even paid” (Dubé & Miller, 1988, p. 16). I mention this story to point out that disagreements about internship definitions and payment are not new: They are deeply embedded in the history of experiential education.

Even the history and guidance about internship payment are murky at best. The earliest legal guidance about internship compensation was provided through a 1947 Supreme Court decision. Despite modern internships typically taking place in a professional or office environment, the case that set precedent for internship payment focused on a railroad brakeman working for the Portland Terminal Company. The brakeman argued that he had not been properly compensated according to the Fair Labor Standards Act because he had not been paid for the week-long training period that preceded his paid work with the company (Walling v. Portland Terminal Co., 1947). In their decision, the Supreme Court ruled that “the Fair Labor Standards Act was not intended to penalize railroads for providing, free of charge, the same kind of instruction at a place and in a manner which would most greatly benefit the trainees” (1947, para. 5). In essence, if an organization provides training that is primarily for the trainee’s benefit (and that may actually impede the company’s business), then the employer should receive special exemption from federal minimum wage laws.
The sentiment behind the Supreme Court’s decision was a good one. Companies should be able to offer an unpaid training experience that makes workers eligible to do paid work in the future. This arrangement seems to benefit all parties: Companies can recruit and then properly train their new hires with minimal costs, and novice employees can take advantage of training that will enable them to make a wage later in their careers.

However, significant aspects of the internship landscape have changed since this 1947 decision. The unpaid training provided by the Portland Terminal Company only lasted a week, whereas most internships now last a full summer or 16-week semester (and sometimes longer). The Portland Terminal Company also paid workers for their training retroactively, once they completed their training and proved their competency. This is not a common arrangement today.

The 1947 Walling decision was the only guidance that the Department of Labor (DoL) offered about paying interns until nearly 50 years later. After receiving a request for clarification about the status of unpaid student interns, the DoL produced an opinion letter to address some of the ambiguities (Sweeney, 1996). It was at this point that the DoL established its so-called “six prong test” for determining whether a worker was a student intern. If all six of the following criteria were true, the DoL would not consider the worker an employee, and the company would not have to pay that person minimum wage.

1. The training, even though it includes actual operation of the facilities of the employer, is similar to that which would be given in a vocational school;

2. The training is for the benefit of the trainee;
3. The trainees do not displace regular employees, but work under close observation;

4. The employer that provides the training derives no immediate advantage from the activities of the trainees and on occasion the employer’s operations may actually be impeded;

5. The trainees are not necessarily entitled to a job at the completion of the training period; and

6. The employer and the trainee understand that the trainees are not entitled to wages for the time spent in training.

(Sweeney, 1996)

Though the DoL’s definition of an intern is intended to discern when interns should be paid, it is also a useful definition in a landscape that lacks clarity about what an internship actually entails.

An additional internship definition is offered by the National Association of Colleges and Employers (NACE), which is the leading professional organization focused on employer-college relations and recruitment of workers with college educations (National Association for Colleges and Employers, 2017). NACE has members from 2,100 colleges and universities, and the organization is a well-known source of information about best practices and trends regarding employment. NACE defines an internship as

a form of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills
development in a professional setting. Internships give students the 
opportunity to gain valuable applied experience and make connections in 
professional fields they are considering for career paths; and give 
employers the opportunity to guide and evaluate talent. (2011)

Still another definition is provided by Kuh (2008), the founding director of the 
National Survey of Student Engagement and Senior Scholar and Co-principal 
added an academic component to his internship definition, describing internships as: 
direct experience in a work setting—usually related to [students’] career 
interests—and to give them the benefit of supervision and coaching from 
professionals in the field. If the internship is taken for course credit, 
students complete a project or paper that is approved by a faculty 
member. (p. 11)

The definition of an internship differs between the DoL, NACE, and Kuh, with 
each one having more of a focus on payment, employer benefits, and academic learning, 
respectively. Despite their different lenses, they have the following aspects in common. 
An internship consists of:

- Work done in a professional environment;
- A connection from applied learning to academic/theoretical knowledge;
- Experience that is valuable for the student, and this experience may in fact be 
  more valuable for the student than for the employer.
For the purposes of this dissertation, I defined an internship using the three above characteristics.

2.2. Benefits of Internships

There is a wealth of benefits for students who engage in internships, including personal growth, accumulation of skills, expansion of personal networks, increases to college and workplace success, and salary and employment gains. Organizations that host interns also see benefits in the form of low-cost labor, a “try-out” period before hiring a permanent employee, and savings in hiring costs. As you read this section and see the many benefits bestowed upon student interns, consider Gloria and Marcus’ stories in Chapter One, and the implications that all students may not have equal access to these important opportunities.

2.2.1. Personal and Developmental Benefits for Students

Students often recognize the value that internships add to a resume, but there are also significant benefits that students gain from internships on personal and developmental levels. Internships can provide students with the opportunity to “try out” a field to determine if it is a good fit for their needs (Coco, 2000). In my personal experience as an internship coordinator, I have often had students engage in an internship only to find out that the organization or position is not what they expected and is not a compatible fit for the student’s interests or skills. Students may return expressing that the work was not what they expected it to be, or that their skills were not actually as developed as they thought they were. This kind of skill and interest clarification can help target students’ career paths, and also help them determine areas of growth.
An internship can also give a window into organizational culture that helps to clarify the student’s values around work. After an internship, a student may observe that “there is not enough structure for me in a small organization,” or conversely, “there is too much hierarchy in a corporate environment.” It is within an internship setting that students often clarify their own priorities around work-life balance, compensation needs, physical environment, or organizational mission. Sometimes students’ value clarifications can lead to a significant change in career trajectory.

Even realizations of poor fit are important experiences to have. Discovering incompatibility with a particular company or industry is much more helpful to discover at the internship level, instead of having this realization after committing to permanent, post-graduate employment. As much as internships serve as “try outs” for interns to prove themselves to an organization, they are also opportunities for students to test their expectations in a lower-stakes, more supportive environment. Students can use internships as a sampling of a particular industry or a company’s culture, without the concern of long-term commitment (Coco, 2000).

In addition to testing the skills and interests that they already have, internships allow students to develop new skills that will help them in their future work (Aldas, Crispo, Johnson, & Price, 2010; Simons et al., 2012). Skills are often divided into two categorical types: “Hard skills” are concrete, measurable skills that are often based on specific equipment, procedures, or technology (Laker & Powell, 2011). Examples would be budgeting, programming in JavaScript, CPR certification, and fluency in Spanish. “Transferrable skills” are interpersonal abilities that are needed to navigate the workplace
and are less tangible. Transferrable skills include communication, problem solving, and the ability to collaborate (Pellegrino & Hilton, 2012). Ideally, a student will develop both hard and transferrable skills as a part of their internship experience. A student can feature their newly gained skills on a resume, and these professional and social abilities will also help the intern in future workplaces or job searches.

Additionally, an internship is an environment where students can find mentors to guide them in their career paths (Hurst, Good, & Gardner, 2012). Hurst (2012) explained that mentors provide students with support, feedback, and guidance, and are important for helping recent hires familiarize themselves in a new environment. Mentorship has also been shown to have benefits for mentees such as increased salary, better commitment to the mentee’s employing organization, and higher career satisfaction compared to those who are not mentored (D’Abate, 2010).

2.2.2. Effects on Students’ Collegiate Success

To support student success while enrolled at the post-secondary level, college administrators often advocate for student involvement in “high-impact practices,” citing a correlation between involvement in these activities and collegiate retention and engagement levels (Kuh, 2009; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Kuh, Kinzie, Schuh, & Whitt, 2010). High-impact practices are a collection of ten different activities that include internships, as well as undergraduate research, writing-intensive courses, and other experiential education opportunities that involve deep, meaningful learning. Students who participate in these types of collegiate experiences are shown to have significant gains during the time they are enrolled: They are more satisfied with
their college experiences, have higher academic performance, and are more likely to persist and graduate than their peers who do not have the same kind of involvement (Kuh, 2008; Kuh et al., 2008).

High-impact practices, which include internships, are also correlated with “compensatory gains” while students are still in school (Bowen, Chingos, & McPherson, 2011). Bowen and colleagues (2011) observed that historically underserved students, including African American students and first-generation college students, are shown to benefit even more from high-impact practices than do their peers of more privileged backgrounds (Bowen et al., 2011; Kuh, 2008). This increased positive impact for certain populations can be viewed as a buoying effect, bringing the persistence, engagement, and graduation rates closer to the rates of their more privileged peers (Kuh, 2009).

In short, though students, parents, and faculty may not initially think of internships as a way to enhance students’ overall collegiate academic experience, involvement of this type is correlated with staying in school, higher graduation rates, and higher satisfaction with one’s college experience, particularly for students from historically marginalized backgrounds.

2.2.3. Influences on a Graduate’s Hiring Process and Starting Salary

Even though the personal and developmental benefits of internships are valuable, they pale in comparison to the enormous employment and salary benefits that students gain from internships. These employment benefits are especially important in the current economic landscape, which is extremely competitive. In a time when nearly a third of all adults have a college degree (U.S. Census Bureau, 2015), job applicants must also use
other signals to stand out from the pack. Educational demographics have changed significantly in the past hundred years: In 1940, only five percent the population over the age of 25 had an undergraduate degree or higher. Over the course of about seventy years, the percentage of bachelor degree-holding individuals increased by fivefold, with a third of the 25 and older population holding college degrees in 2009 (U.S. Census Bureau, 2015).

With a larger cohort of college-educated peers competing for a limited number of positions, having an internship on one’s resume is a way to demonstrate additional experience and skills. Simply stated, those who have had prior professional experience will rise above their peers who have not (National Association of Colleges and Employers, 2017).

In two different studies, students with internship experience have been shown to be more likely to find post-graduation employment than their peers who have not completed an internship (D’Abate, 2010; Knouse & Fontenot, 2008). Sagen, Dallam, and Laverty (2000) found that students’ collegiate internships had a positive conditional effect on employment success (defined as finding a job within two months of graduation). Sagen and colleagues also point out that the students’ career-preparation experiences may not just be building skills that make them better workers: They argue that an internship credential on a student’s resume signals to employers during the hiring process that the student is more “employable,” and makes employers more likely to hire those students.

Students with internship experience also gain a litany of other employability benefits, compared to their non-interning peers. Those who have interned are shown to
have a better understanding of the world of work, they receive more job offers and higher starting salaries, and secure full-time work earlier than those who have not engaged in an internship (Coco, 2000).

Not only do internships make students more likely to be employed, but in some circumstances, internships may be the only entry point to employment in particular industries. In some instances, there are actually fewer entry-level jobs available because roles that were historically taken by recent graduates are now occupied by undergraduate interns (Owens & Stewart, 2016). In an analysis of over 200,000 online internship postings, Sigelman (2015) found that about 20% of entry-level positions within the engineering, media, communications, and marketing sectors have been absorbed by student interns. To think of this in another way, one in five entry-level positions in those fields can only be obtained only by those who begin their careers as interns.

Not only are internships imperative to gain entry into many fields, but they are also a needed credential to earn a sufficient wage post-graduation. A 2016 Forbes article noted that students who have interned will earn a starting salary that is 28% higher than those who did not engage in an internship (Day, 2016). This should not be surprising: When a rising number of college students have internship experience, those without this desirable credential will be the last to be employed and will miss out on more lucrative opportunities.

2.2.4. Long-Term Work Engagement Gains for Students

In addition to the positive effects on hiring prospects and starting salary, collegiate involvement in high-impact practices (such as internships) also appears to
affect levels of work engagement long after graduation. Gallup (2014b) found that alumni who had participated in the following three activities: an internship, extra/co-curricular activities, and a multi-semester project, were twice as likely to report being engaged in their post-college professional work than their peers who had not taken part in those activities. Gallup points out the significance of engagement in the workplace by examining the liability that disengaged workers can present, explaining that “workers who are actively disengaged are physically present but intellectually and emotionally disconnected from their work and workplace. They are unhappy with their work, share their unhappiness with their colleagues, and jeopardize the performance of their teams” (2014b, p. 3).

Gallup’s findings have implications that stretch far beyond the student who took up these activities in college: Not only does workplace engagement impact an employee’s productivity, but it also has ripple effects on the employee’s coworkers and teams. A student’s involvement with high-impact practices has significant, positive influences on their experiences both during and after college. In all, the effects of high-impact practices are shown to affect everything from a student’s decision to stay in college, to whether they will graduate, to how they will experience their future workplace.

2.2.5. Benefits for Companies

Many companies use internships as a pipeline for new talent, making internships even more vital for post-graduation employment prospects (Coco, 2000). An internship can serve as a “test-drive” for companies as they evaluate new talent, and internships allow organizations to see if the intern would be a good fit at their organization. And it
usually is. In a 2016 employer survey, NACE reported that 72.2% of interns eventually received full-time job offers from the companies where they worked, and 85.2% of those offered positions accepted them.

In a *Wall Street Journal* article, entrepreneur Jay Samit is quoted about the equalizing benefits that smaller companies gain from hiring interns:

Every company, regardless of size, is competing for the same pool of talent, which is why top recruiters can even command equity for finding key hires. Internships give startups a chance to hire the best and brightest from our universities at a fraction of the cost that these same minds will command when they receive their degrees. (Vasquez, 2014, para. 1)

Another advantage in converting interns to full-time hires is that students can be trained early so that they are ready to join as full-time employees upon graduation (Selingo, 2015). Companies reap significant financial benefits when they train up their own interns, as opposed to hiring from outside of the company. Some sources cite as much as $6,200 in cost savings for each intern hired into a full-time position, when compared to the cost of onboarding a brand-new hire from outside of the company’s network (Gault, Leach, & Duey, 2010).

Converting an intern to a full-time hire also has long-term benefits. Student interns who are eventually hired at their internship company are more likely to persist at the company than those who interned elsewhere or who did not intern at all (National Association for Colleges and Employers (NACE), 2016). Additionally, NACE reported that the employability benefits of interning also compound over time: Of students who
Intern more than one time at a particular organization, nine out of ten will receive offers of full-time employment (compared to an overall offer rate of 72%) (National Association of Colleges and Employers (NACE), 2015a). This statistic may have multiple interpretations. Perhaps companies tend to invite their stand-out interns to return more often, and those students are the ones who most commonly receive employment offers. Or, those students may have received so much training that the company will benefit even more from the full-time hire of those interns. Regardless of the reasons, job applicants fare very well in employment processes with companies where the applicant has previously interned, and hiring companies tend to hire those who are former interns.

Even for employers who hire outside of their own pool of interns, companies have expressed that they are seeking entry-level hires who already have experience, and many organizations prefer that the experience comes from internships. Of employers responding to the National Association of Colleges and Employers (NACE) 2016 Job Outlook survey, 56% of respondents preferred that applicants’ previous experience come from an internship or co-op (compared to 44% of companies that had no preference about the method that candidates used to gain experience).

2.3. Internship Prevalence and Trends

Though statistics are difficult to discern, it appears as though the number of students engaging in undergraduate internships has steadily risen over the last three decades. Authoritative data is not available on the subject, because internships are not comprehensively tracked by the federal government or any other entity. The internship climate does feel like it has exploded during the last ten years. Two major motion pictures
were produced in the 2010s that highlighted internships (Levy, 2013; N. Meyers, 2015). A myriad of lawsuits has emerged (Suen & Brandeisky, 2014), with unpaid interns claiming that their internships were not educational experiences, but rather exploitative, menial labor without pay. Newspapers have featured headlines about major companies being sued for violating employment law with unpaid internships, including Warner Music, NBC Universal, Viacom, Fox Searchlight Pictures, and Condé Nast (Weissmann & Weissmann, 2015). Internships are a considerable focus of employers, higher education professionals, parents, and students. However, these higher education constituents and the media focus much of their attention on the value of internships or issues of legal compliance, and do not often discuss issues of internship access or availability.

The reason for a heightened focus on internships is perhaps because a post-recession job market has resulted in a more competitive economic landscape (Looney & Greenstone, 2010), which has left more recent college graduates under- or un-employed (Greenleaf, 2014). A post-recession economic depression may have set the stage for more college students to take on internships – to buoy them in challenging economic circumstances and serve as a springboard into permanent work.

Despite being a topic of increased focus, little is known about how many students engage in internships, where they intern, or what proportion of internships are paid. In his book *Intern Nation* (2012), Ross Perlin summarized the dearth of knowledge in this area: “There are few, if any, experts on the sprawling subject of internships, and little research is available” (p. 225).
Even authoritative sources on internship trends and statistics lack conclusive information. Phil Gardner, Director of the College Employment Research Institute at Michigan State, was interviewed for Perlin’s 2012 internship exposé. Gardner is quoted as saying, “there hasn’t been anybody that’s really monitored it…right now the research capacity in this area is dismal. Most schools don’t even know how many of their students actually have internships, period” (Perlin, 2012, p. 26). During this interview, Gardner estimated that 70-75% of students engaged in internships, based on survey work he has completed.

The National Association of Colleges and Employers (NACE) began gathering more reliable data on internship participation during the recession, when they reported that 50% of undergraduates reported internship experience in 2008 (Saltikoff, 2017). NACE’s estimates have increased in the last ten years, with 65% of bachelor-degree students in the United States reporting that they had an internship in 2015 (National Association of Colleges and Employers, 2015b). Extrapolating NACE’s survey data nationwide puts the estimated total of student interns in the U.S. at close to 13 million current students (National Association of Colleges and Employers, 2015b; National Center for Education Statistics, 2015). That number is further corroborated by the National Survey of Student Engagement (NSSE). In 2017, NSSE surveyed a total of 22,902 undergraduate seniors at 636 institutions across the United States, and found that 60.4% of respondents were currently engaged in, or had previously engaged in an internship during their time in college (National Survey of Student Engagement, 2017).
NACE’s and NSSE’s data are the only nation-wide surveys that collect data on internship engagement.

The fact that internship statistics are difficult to obtain makes internships even more enigmatic. Their importance is covered in the news, and employers increasingly demand this kind of experience. However, even with a heavy media and employment focus on internships, authoritative national data about internship engagement is conspicuously absent.

2.3.1. Paid vs. Unpaid

Some internships offer payment, whereas others do not. Payment will often depend on industry trends, and a company’s need for intern talent. In the same way that high full-time salaries attract skilled workers, competitive internship salaries will also bring in a greater number of applications from more talented students (Sigelman, 2015). Companies in STEM fields (Science, Technology, Engineering, and Math) are more likely to pay interns, in contrast to nonprofits, arts-based organizations, the government, and media organizations, which are more likely to have unpaid internships (Gardner, 2011).

Though overall statistics about payment are not available, online internship postings demonstrate at least a portion of available internship opportunities do not offer any kind of remuneration. Companies offering unpaid internships expect that student interns will work in exchange for “experience,” rather than an income. Though some may view this kind of exchange as a necessary evil (new workers should expect to “work their way up the ladder”), working for free is not an option for many college students who
necessitate some sort of income while they pursue a degree. Several authors examine the tension that students experience when students feel pulled between a paid part-time job and an unpaid internship, and the financial burden that this puts on students from lower income backgrounds (Allen et al., 2013; Burke & Carton, 2013; Grant-Smith & McDonald, 2017; O’Connor & Bodicoat, 2017; Siebert & Wilson, 2013).

Students who require compensation will only be able to consider paid internships, limiting those students to a smaller subset of opportunities that have more competition from their internship-seeking peers. The internship site Internmatch.com reported an average of 2.5 times the number of views for paid internships compared to unpaid internships, demonstrating the increase in student attention on positions with compensation.

In short, those unable to work for free will have fewer internship options to choose from and will have to work harder to obtain these positions. If some students do not even have access to internships (now essentially an employment pre-requisite), it creates major issues of inequity.

2.3.2. Rationale for Unpaid Internships

Though it is tempting to simply attribute unpaid internships to companies’ desires to save money, there are several complicating factors that favor employers in the employer/intern relationship, allowing employers to demand that interns forego a salary. To start with, the post-recession landscape has led to a challenging employment environment. The echoes of the 2008 financial recession have resulted in a landscape where recent graduates face low wages, mounting student debt, and a hyper-competitive
job market (Aronson, Callahan, & Davis, 2015). Additionally, more job applicants than ever now have college degrees, and even well after the 2008 economic recession, new college graduates continue to experience high rates of “under-employment” – being pressured to take jobs that do not require a college degree. The under-employment rate of recent college graduates hovers around 45% (Abel & Deitz, 2016).

Though it may seem like a short-term, minor inconvenience to be “under-employed” due to a recession, it has long-term effects on graduates’ salaries. Oreopoulos, von Wachter, and Heisz (2012) wrote that those graduating during a recession will suffer from persistent decreased earnings. Oreopoulos and colleagues (2012) wrote that “unlucky graduates suffer persistent earnings declines lasting ten years” – long after the recession has passed.

In this kind of hyper-competitive market, employers hold much of the control in the hiring process. There is an over-supply of entry-level talent competing for a limited number of positions, and recent graduates have little power as they seek positions. Cost-conscious companies thinking about their bottom lines will aim to bring in talent for as little money as possible, and a swath of college-age workers are now willing to work for no pay. In these circumstances, why wouldn’t companies hire unpaid interns?

Despite the fact that internships seem to have dramatically increased in popularity, there is still minimal federal guidance about how and when companies need to pay their interns. Employers are left to rely solely on the Department of Labor’s six-prong test (Reid, 2015), and as I will outline, this guidance seemed equivocal and ineffective even when it was first created over 20 years ago.
The six-prong test established criteria for when an intern can be unpaid, but the criteria essentially boil down to the idea that the internship should be “similar to training which would be given in an educational environment” and that “the internship experience is for the benefit of the intern” (U.S. Department of Labor Wage and Hour Division, 2010). Not surprisingly, the hazy criteria have left lawyers, interns, employers alike with an unclear understanding of when internships must offer compensation, and companies continue to take advantage of unpaid student labor.

The federal government has also been reluctant to provide any further guidance or regulation of unpaid internships. In the twenty years since the DoL authored its six-prong test, there have been only a half-dozen high-profile cases where an unpaid internship was deemed illegal, and those were egregious examples of student exploitation. Perhaps due to its finite resources (about 1,000 DoL investigators oversee over seven million workplaces (Brandeisky, 2014)), the DoL does not proactively investigate issues around unpaid internships, but instead relies on workers to bring violations to the DoL’s attention [Brandeisky, 2014]). Relying on exploited interns to come forward may not be the best tactic, considering that unpaid interns are often hesitant to register complaints due to fear that it will risk future career prospects (Greenhouse, 2012).

In short, there are currently few, if any consequences for violating labor laws as they relate to unpaid internships. With such little guidance, employers can hardly be blamed for hiring college students into unpaid internships. Companies trying to save money will take advantage of every cost-saving measure available, and there are seemingly no repercussions for leveraging young talent for no pay.
2.4. Issues of Access: Using Bourdieu as a Theoretical Framework

In this section I will introduce a landmark study in childrearing that uses Bourdieu’s (1986) capital theory to explain engagement in important opportunities like internships. I will demonstrate how students with social and cultural capital learn how to navigate complex systems of internships, whereas those who lack this capital are left out of internships altogether.

Though lacking access to internships may seem like a minor inconvenience, remember that internships are often the gateways into particular careers and industries. If certain populations are excluded on the basis on identity, income, or social connections, it means that those characteristics and perspectives may not be represented or considered in our government, media, or businesses.

Indeed, internships are likely unattainable for some populations of students. However, little research has focused on issues of internship access. In his career advice book, Charles Murray (2014) astutely noted that "internships are affirmative action for the advantaged" (2014, p. 93). Though provocative, Murray identified a suspicion that many have about internships – that they are a special kind of experience, reserved only for those with elite connections, financial means, or both. Essentially, internships can serve as an early leg up into certain industries, but few students can take advantage of these kinds of opportunities.

I posit that Bourdieu’s (1986) capital theory provides a useful lens to examine students’ access to internships. Bourdieu outlined three types of capital: cultural capital, social capital, and economic capital. These types of capital describe assets that determine
social status and influence social mobility. Bourdieu described cultural capital as the education, knowledge, skills, and habits that one possesses. Examples of cultural capital include a student’s major, GPA, and professional habits (such as the ability to show up on time). Bourdieu also outlined social capital, which encompasses a person’s social connections and networks. When thinking about internships, social capital might come in the form of parents’ connections, or one’s alumni network at their college. Lastly, Bourdieu identified economic capital, which are the property and monetary resources that one has (1986).

To maintain a fair playing field, most people would probably think that hiring should be based on cultural capital alone; that is, employers should hire based on knowledge, skills, and earned credentials like GPA, past experience, and specific know-how. However, access to opportunities can also be based on intangible traits that are characteristic of social and economic capital. Several studies (Allen et al., 2013; Frenette, 2013; Grugulis & Stoyanova, 2012; O’Connor & Bodicoat, 2017) show how internships require certain levels of social or economic capital that not all students will have. For instance, Allen, Quinn, Hollingworth, and Rose (2013) described the importance of “word-of-mouth recruitment via social networking” (p. 440) and how social capital was a crucial component of finding employment opportunities in creative industries. Without certain connections, students may not have access to employment in the field. Similarly, Bathmaker, Ingram, and Waller (2013) described the necessity of “combining cultural capital in the form of ‘what they know’ with social capital in the form of ‘who they know’” (p. 4) in order to transition into the labor market.
Soria and Stebleton (2012) elaborated on the definition of social capital to include one’s first-generation status (i.e., whether someone is the first in their family to attend college). Those with highly-educated parents inherit specific guidance about how to navigate institutions of higher education, which may offer an advantage over their first-generation peers (Soria & Stebleton, 2012).

In her 2011 ethnography Unequal Childhoods, Lareau provided a rich description of the differences between families that had the ability to connect to these important professional networks (those who Bourdieu would say have social capital), and families who did not have the tools to navigate the complex systems of the workplace and school (in a Bourdieuan lens, those who lack social capital). Lareau described how families with more resources practiced “concerted cultivation” and taught their children how to navigate societal systems starting from a very young age. Lareau (2011) explained, “concerted cultivation... plays an especially important role in institutional settings, where middle-class children learn to question adults and address them as relative equals” (Lareau, 2011, p. 2). Students raised with concerted cultivation learned the valuable skills of how to build and leverage their social capital. Lareau described that the other group of children, who Bourdieu would say lack social capital, do not have the tools and resources needed to navigate complex systems or keep up with peers raised with concerted cultivation.

Lareau also described how parents intentionally foster and groom their children’s talents, skills, and development through organized activities, which Bourdieu would view as the instilling of cultural capital (2011). Though Lareau was writing about primary
school-aged children, the same phenomenon of “concerted cultivation” also occurs in college students. Parents and children who come from means and privilege are able to leverage their networks and experiences to continue to take advantage of opportunities, such as internships (remember Gloria in Chapter One). This is an example of privilege begetting more privilege. Lawrence (2016) similarly noted the reproduction of opportunity, mobility, and wealth that occurs between generations.

In Unequal Childhoods, Lareau described that through their upbringing, students raised through concerted cultivation gain a “sense of entitlement,” whereas students raised with a “natural growth” model come away with “an emerging sense of distance, distrust, and constraint in their institutional experiences” (Lareau, 2011). Those raised in a natural growth model have fewer tools and less cultural capital to navigate the complex systems of hiring and employment. Lacking the important connections and skills can be particularly consequential when pursuing an internship, where connections and social capital can be vital for obtaining these opportunities.

Though Lareau’s observations of childrearing did not directly reveal issues of economic capital, this is another type of advantage that impacts students’ ability to engage in internships. Allen and colleagues (2013) described how economic capital factored into college students’ work placements, saying that unpaid opportunities “led working-class students to self-select how many and what kinds of placements they undertook on the basis of their financial situation. This included taking shorter-term placements, choosing placements near home, or only undertaking one placement” (p. 442). In short, when some students must choose between an unpaid internship and a paid
part-time job, they may not actually have a choice. Lehman (2012) echoed these sentiments, explaining that students from lower-income backgrounds have a greater financial need to work in off-campus employment, making it difficult to find time for other extra-curricular activities.

Though internships are a form of experiential learning that are popular from a variety of perspectives (employer, student, faculty, parent), it is important to examine the demographics and breakdown of those who participate in them and those who do not. If internship participation is actually based on an applicant’s social and economic capital, then internships should not be viewed as a vehicle for social mobility, as they simply serve to reproduce existing structures of wealth.

2.4.1. Limits to Bourdieu

Several researchers and theorists (Lin, 2000; McDonald & Day, 2010; Stanton-Salazar, 1997; Yosso, 2005) noted the often-overlooked connections between identity (particularly race) and Bourdieuan social capital. Critics of capital theory (Lin, 2000; McDonald & Day, 2010; Stanton-Salazar, 1997; Yosso, 2005) explained that it is centered on those who are White, middle-class, and male, and does not take into account the experiences and networks of those who hold marginalized identities.

Indeed, Bourdieu’s (1986) explanation of social capital is contingent upon one’s connections having societal power. McDonald and Day (2010) pointed out that people tend to socialize with those who hold similar identities, called “homophily.” Those who hold dominant identities (e.g., White, male, cisgender, heterosexual, able-bodied) will likely build social capital with others who hold dominant identities, and these
connections and insider knowledge will help them succeed. However, those with marginalized identities (i.e., those who are not White, male, cisgender, heterosexual, able-bodied, etc.) are likely to build social capital with those who have similar experiences and demographics, and who will not hold as much power in a society that attributes more power to those with dominant identities.

For a real-life example, a Black, gay woman may build most of her connections with others who are Black, gay, and who identify as women. Let us compare her to a White, straight man who has the same number of social relationships. The difference is that the White, straight man will have more White, straight, and male-identified connections, who will be likely to have more capital and power in our society. That being said, there is also a richness in relationships and capital within the network held by the Black, gay woman. However, solely using a Bourdieuan perspective would fail to recognize the support, community, and sisterhood that woman gains from those around her.

As Yosso (2005), Lin (2000), McDonald and Day (2010), and Stanton-Salazar (1997) recommended, it is important to take social identity into account in addition to Bourdieu’s (1986) categories of social, cultural, and economic capital. While Bourdieu’s theory provides a useful framework, it does not adequately account for well-documented inequities, such as economic opportunity that varies by gender (Blau, 2016), sexual orientation (Sears & Mallory, 2011), and race (Reardon & Bischoff, 2011). For these reasons, I also examined identity and demographic information in the current study.
2.5. Research Questions

To investigate issues of equity for internship engagement, I propose the following two research questions:

1. Do students’ identities and/or economic, social, and cultural capital indicators differ depending on participation in an internship?
2. What are the factors that significantly relate to undergraduate students’ participation in internships?

2.6. Concept Map and Significance of the Current Study

The concept map (Figure 1) shows the theoretical/conceptual model of the identities and capital required to engage in an internship. The top purple box shows identity and social, cultural, and economic capital (Bourdieu, 1986) that impact whether a student engages in an internship. I hypothesized that students of dominant identities (men, able-bodied, straight, and White students) and with higher levels of capital engage in internships at higher levels than their peers who have subordinate identities and/or lower levels of capital.
CHAPTER THREE: METHODOLOGY

I begin this chapter by reviewing the purpose statement and defining operational variables used in the current study. I then present the research design, which includes research questions, the hypotheses, and an examination of the National Survey of Student Engagement (NSSE) as a survey instrument. Subsequently, I offer a description of the institution where the study takes place and population I examined for this study. I then outline the research procedure and provide a data analysis plan.
3.1. Purpose Statement

The purpose of this study is to examine the differences in identities and cultural, social, and economic capital held by University of Vermont undergraduates who participate in internships compared to the identities and cultural, social, and economic capital of those who do not participate in internships. An additional purpose is to explore the relationship between internship engagement and participants’ identity and cultural, social, and economic capital indicators.

3.2. Study Constructs and Variables

I analyzed a number of variables in this study, and I grouped these independent variables into themes of identity and social, cultural, and economic capital from the theoretical framework presented in Chapter Two (visually depicted in Figure 1). As I will explain later in this chapter, I also used the identity and social, cultural, and economic capital themes to create four different regression analyses. I outline the definitions and operationalizations for each variable in Table 1 below.
<table>
<thead>
<tr>
<th>Themes</th>
<th>Internship Engagement (Dependent variable)</th>
<th>Identity</th>
<th>Social Capital</th>
<th>Economic Capital</th>
<th>Cultural Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>Engagement in an internship during the student’s undergraduate career</td>
<td>Demographic and identity factors</td>
<td>Resources linked to one’s network of relationships (Bourdieu, 1986)</td>
<td>Money, property, and other forms of economic wealth (Bourdieu, 1986)</td>
<td>One’s intellectual skills and knowledge (Bourdieu, 1986)</td>
</tr>
</tbody>
</table>
| **Operationalization** | Response to NSSE question: “Which of the following have you done or do you plan to do before you graduate?” Sub-question: “…participate in an internship, co-op, field experience, student teaching, or clinical placement.” | UVM Office of Institutional Research (OIR) information on respondent’s:  
- Sex (male/female)  
- Race (White/Person of Color)  
- Residence (Vermont/out-of-state) | NSSE Engagement Indicators:  
- Quality of Interactions  
- Supportive Environment  
- Student-Faculty Interaction  
- Collaborative Learning | UVM OIR information on respondent’s:  
- Respondent’s first-generation status (whether a parent completed any college)  
- Diagnosis of disability (has a disability/does not have a disability)  
- Sexual orientation (Straight/LGB) | UVM OIR information on respondent’s:  
- Cumulative GPA at the time of assessment  
- Zip code from UVM OIR and cross-referenced with U.S. Census data  
- Median household income of respondent’s home zip code |
Internship participation: In this study, I defined an internship as work done in a professional environment; that has a connection from applied learning to academic/theoretical knowledge, offers experience that is valuable for the student, and this experience may in fact be more valuable for the student than for the employer. Internship participation is the dependent variable in the current study, and I measured it with a question asked in the National Survey of Student Engagement (NSSE). The NSSE question that identifies internship experience is worded as, “Which of the following have you done or do you plan to do before you graduate?” The first sub-question is, “…participate in an internship, co-op, field experience, student teaching, or clinical placement.” Answer options are “Done or in progress,” “Plan to do,” “Do not plan to do,” and “Have not decided.” Because the current study examines participation and not intent, I only counted internship participation for those who answered that an internship was “Done or in progress.”

At the UVM student teaching and clinical placements are degree requirements for all majors within the College of Education and Social Services (CESS) and College of Nursing and Health Sciences (CNHS). Since this study examines elective participation, I excluded CESS and CNHS students from the dataset. UVM is currently piloting a co-op program in the College of Engineering and Mathematical Sciences, but fewer than 10 students a year participate in the program (L. Petrie, personal communication, September 6, 2018), and the work still satisfies the definition of an internship as is presented in the current study (UVM College of Engineering and Mathematical Sciences, 2018). The term “field experience” is often used in teacher education programs (DePaul University, 2018;
Georgia Southwestern State University School of Education, 2012; Southern Arkansas University, 2018) to describe hands-on teaching experience and would also satisfy the current study’s definition of an internship.

**Identity:** I examined a number of identity factors, including the respondents’ sex, state residence, disability status, race, and sexual orientation. Sexual orientation and disability status are questions asked on the NSSE. I also examined respondents’ racial identity, residence, and sex, information provided by the UVM Office of Institutional Research.

**Social capital:** Social capital is defined by Bourdieu (1986) as resources linked to one’s network of relationships. In the current study, I operationalized social capital using NSSE’s Engagement Indicators: Student-Faculty Interaction, Quality of Interactions, Collaborative Learning, and Supportive Environment. Engagement Indicators are composites of questions that have better explanatory power and are detailed in the NSSE Data Codebooks (NSSE, 2018b).

**Cultural capital:** One’s intellectual skills and knowledge constitute cultural capital (Bourdieu, 1986). For the purpose of this study, I operationalized cultural capital with the respondent’s GPA and four NSSE engagement indicators that measure the student’s experience with higher order learning, reflective learning, learning and studying strategies, and quantitative reasoning.

**Economic capital:** Money, property, and other forms of economic wealth make up one’s economic capital (Bourdieu, 1986). I measured economic capital with the respondent’s first-generation status (information from UVM’s Office of Institutional
Research) and the median household income in the respondent’s hometown. I obtained this number by cross-referencing the respondent’s hometown zip code with data from the U.S. census.

3.3. Overview and Research Design

This ex post facto quantitative study uses secondary analysis to examine two data sources: results from the 2017 National Survey of Student Engagement (NSSE) at the University of Vermont, and GPA and demographic information obtained through the University of Vermont’s Office of Institutional Research.

3.3.1. Research Questions

1. Do students’ identities and/or economic, social, and cultural capital indicators differ depending on participation in an internship?

2. What are the factors that significantly relate to undergraduate students’ participation in internships?

3.3.2. Hypotheses

This study tests the following hypotheses:

- Economic, social, and cultural capital indicators have a significant, positive relationship with students’ participation in an internship.

- Dominant identities (male, able-bodied, heterosexual, and White) have a significant positive relationship with participation in an internship.

- Students’ identities and economic, social, and cultural capital indicators significantly differ depending on whether the student participated in an internship or not.
3.3.3. NSSE as a Survey Instrument

According to the website for the National Survey of Student Engagement (NSSE), the NSSE measures first-year-student and senior students’ engagement at hundreds of four-year colleges and universities across the United States (2018a). NSSE defines student engagement as…:

…two critical features of collegiate quality. The first is the amount of time and effort students put into their studies and other educationally purposeful activities. The second is how the institution deploys its resources and organizes the curriculum and other learning opportunities to get students to participate in activities that decades of research studies show are linked to student learning. (NSSE, 2018a).

At the University of Vermont, the 2017 NSSE was administered to 527 senior students, which was a 24.7% response rate for the senior class. The NSSE survey used by the University of Vermont in 2017 contains a total of 109 multiple-choice responses organized into 40 sections.

The constructs within the NSSE survey tool have been shown to have high internal consistency as measured by a Cronbach’s alpha of over .70 for all subpopulations (NSSE, 2018c). NSSE constructions have also been shown to have acceptable levels of predictive validity, concurrent validity, and consequential validity, and are shown to have strong stability stable over repeated administrations (NSSE, 2018c).
NSSE questions that address self-perceived engagement mostly use four-point Likert scales. An example question is, “During the current school year, about how often have you done the following?” A sub-question is, “Discussed course topics ideas or concepts with a faculty member outside of class.” Answer options are: Very often; Often; Sometimes; Never.

Other questions ask about the student’s perceptions of the quality of their educational institution, the number of hours per week spent engaged in different activities, and questions about identity/demographics, e.g., mother’s highest level of education, status as a student-athlete, and sexual orientation.

3.4. Institutional Overview

The University of Vermont (known as UVM) is a public research institution located in Burlington, Vermont, in the United States (University of Vermont, 2018a). Established in 1791, the University is a Research 2 (R2) university, considered a “Public Ivy,” and ranked amongst the top 100 research universities in the country. In fall 2016, UVM accepted 69% of applicants to the institution (University of Vermont, 2017a).

In 2017 the University had a population of 10,513 undergraduates, 1,542 graduates, and 461 medical students (University of Vermont, 2018b). The University offers one hundred bachelor degree programs that fall into seven schools and colleges:

- College of Agriculture and Life Sciences
- College of Arts and Sciences
- Grossman School of Business
- College of Education and Social Services
• College of Engineering and Mathematical Sciences
• Rubenstein School of the Environment and Natural Resources
• College of Nursing and Health Sciences

UVM also has an Honors College for outstanding undergraduates (University of Vermont, 2018b). Students must receive an invitation to enroll in the Honors College, and then dually enroll in a “home college” and while also taking courses within the Honors College (UVM Honors College, 2018).

White students made up 81% of the undergraduate population at the University of Vermont in 2017 (University of Vermont, 2017b). Eleven percent of undergraduates identified as people of color, and 6% of undergraduates were international students in 2017.

The University of Vermont issued a white paper in 2013 entitled “Preparing for Life After UVM: A Career Success Action Plan” (Rizvi, 2013). Written by then-Honors College dean Abu Rizvi, the plan offered a comprehensive vision, strategy, and steps for increasing career preparation and development for UVM students. The Career Success Action Plan spurred the creation of five new career-focused positions (including my role as the internship coordinator in the Career Center), a centralized drop-in center focused on experiential learning (called “The Hub”), and a “Four Year Plan” to help students build necessary career experience during their four years in college (WGBH, 2014).

My position as the internship coordinator is located in the Career Center, a centralized office on campus that serves all undergraduate and graduate students (UVM Career Center, 2018a). There are several college-specific internship coordinators or
career readiness professionals who are charged with serving their particular student populations. Those positions are situated within Arts and Sciences, Business, Engineering and Mathematical Sciences, and the School of the Environment and Natural Resources (UVM College of Arts and Sciences, 2018; UVM College of Engineering and Mathematical Sciences, 2018; UVM Grossman School of Business, 2018; UVM Rubenstein School of the Environment and Natural Resources, 2018). At the time of this writing, the College of Agriculture and Life Sciences, College of Education and Social Services, and College of Nursing and Health Sciences did not employ college-wide, dedicated career or internship professionals.

Most academic programs in UVM’s College of Nursing and Health Sciences and College of Education and Social Services require that students complete clinical or student teaching rotations for professional or licensure requirements (UVM College of Education and Social Services, 2018a; UVM College of Nursing and Health Sciences, 2018). Because UVM considers clinical and student teaching requirements as distinct from the internship experiences I examined for the current study’s research questions (UVM Office of the Provost, 2013), students in the Colleges of Nursing and Health Sciences and Education and Social Services were not included in the current study.

Internship and career readiness personnel at UVM provide resources and support to students during their internship searches, and students can speak with these staff members during designated drop-in hours or scheduled appointment times (UVM Career Center, 2018b; UVM College of Arts and Sciences, 2018; UVM College of Engineering and Mathematical Sciences, 2018; UVM Rubenstein School of the Environment and
Natural Resources, 2018). UVM staff do not “place” students in internships, as is done at some other universities. They instead help students find and then apply to internship opportunities (UVM Career Center, 2018b; UVM College of Arts and Sciences, 2018; UVM College of Engineering and Mathematical Sciences, 2018; UVM Rubenstein School of the Environment and Natural Resources, 2018). The UVM Career Center maintains a job and internship database called Handshake, which lists opportunities at organizations all over the world, and students can use this tool to find and then apply to internships.

3.5. Population and Sample

The unit of analysis for this study is seniors in the graduating class of 2017 at the University of Vermont. I excluded students in the College of Education and Social Services and College of Nursing and Health Sciences, as most majors in these colleges have degree requirements for clinical or teaching internship experiences (UVM College of Education and Social Services, 2018b; UVM College of Nursing and Health Sciences, 2018), and the current study seeks to understand elective internship engagement. In Chapter Four, Table 3 and Table 4 provide information on categorical and continuous demographic variables (respectively) for survey participants.
3.6. IRB Approval & Data Acquisition

To obtain permission to use data collected by NSSE and the UVM Office of Institutional Research (OIR), I completed an application for review by the University of Vermont Institutional Review Board (IRB) (Appendix A and Appendix B). Following approval by the IRB, I requested data from UVM OIR. OIR is charged with administering the NSSE survey as well as collecting and analyzing the NSSE results. Demographic and identity information such as sex, race, GPA, hometown zip code, and major are also recorded by the Office of Institutional Research. OIR offered to merge student demographic and identity institutional data with results from the NSSE for the purpose of this dissertation. After anonymizing student data using unique student identification codes, OIR kept the identification key and did not share it with me in order to protect participants’ identities. OIR provided me with the merged dataset in the form of a Microsoft Excel spreadsheet and an SPSS file, and I also obtained information of 2013-2017 median household income for each participant’s hometown zip code from the U.S. Census Bureau’s American FactFinder system (U.S. Census Bureau, 2017).

3.7. Data Preparation

I merged the dataset from OIR with the income data from the U.S. Census in an Excel spreadsheet and then opened the new merged dataset in IBM SPSS version 25 to prepare the dataset for analysis.

First, I reviewed all data to check for missing information or errors. I removed 208 cases missing the dependent variable (the answer to the NSSE item about participation in an internship) using listwise deletion (that is, removed all data for those
cases) (Howell, 2008). I also removed 587 first year students from the data set, as my research questions focus on seniors.

As mentioned earlier, I removed students from UVM’s College and Nursing and Health Sciences and College of Education and Social Services from the dataset because these students often have internship requirements for graduation. When participation is mandatory, no predictions about elective participation can be made. Thus, I removed 83 cases from the dataset representing individuals who had membership in one of those two colleges. This left 350 cases for analysis.

For cases missing continuous independent variable data, I employed multiple imputation, which is an approach that uses educated guesses to address issues of standard error underestimation (Howell, 2008). Multiple imputation is a desirable alternative to listwise deletion, since listwise deletions may remove a large number of cases and reduce statistical power (Howell, 2008). Multiple imputation requires the imputation of multiple complete datasets, running analyses, and then combining those multiple analyses. The method uses imputed values based on the original dataset parameters and has become a statistical method of choice now that it can be conducted in SPSS Statistics software (Howell, 2008). Forty cases in the dataset were missing continuous variable data, comprising 11.4% of the dataset. White, Royston, and Wood (2011) recommend using a number of imputations similar to the percentage of incomplete cases. Thus, I used 11 imputations.

While examining demographic information, I also decided to convert several demographic variables to binary variables instead of keeping all categorical options. For
instance, when asked about their sexual orientation, respondents could choose from the following eight options: Straight (heterosexual); Bisexual; Gay; Lesbian; Queer; Questioning or unsure; Another sexual orientation, please specify (fill-in-the-blank); I prefer not to respond. Due to a small sample size, I made the decision to: combine Bisexual, Gay, Lesbian, Queer, Questioning or Unsure, and Another sexual orientation into a combined LGBQ category; create a category of students who identify as straight; and, leave a third category for those who did not wish to respond. I realize that this decision is not optimal, as it collapses all non-straight identities into a single category. Admittedly, I wrestled with this decision, as I place value on the respondents’ unique identities and want to see them all represented. That being said, I also wanted to ensure that those voices were all included in my statistical analysis. To keep all options would reduce the number of respondents in each variable so much that statistical analyses would no longer be meaningful. I also considered the fact that students from the minority/marginalized group (lesbian/gay/bisexual/queer/questioning/another sexual orientation) likely share some of the same college experiences with regard to their sexual orientation (Garvey, BrckaLorenz, Latopolski, & Hurtado, 2018).

I made the same decision for racial identity, collapsing all racial identities into two categories: People of Color and White. Again, I felt this decision was not an optimal way to measure the unique, lived experiences of people from different racial backgrounds. However, instead of losing the voices of a statistical few due to a small sample size in several racial identity categories, I decided to combine responses from People of Color into a single category based on the fact that they may have common
college experiences as racial minorities at a Predominantly White Institution (PWI) (McCoy, 2014).

I used dummy coding for the following binary variables: residence (0 for out-of-state, 1 for in-state); race (0 for White, 1 for Person of Color); sexual orientation (0 for straight, 1 for LGBQ or other); sex (0 for male, 1 for female); disability (0 for does not have a disability, 1 for has a disability); first-generation status (0 for not first-generation student, 1 for first-generation student); and, internship participation (0 for has not engaged in an internship, 1 for has engaged in an internship).

3.8. Procedure

I used Microsoft’s SPSS version 25 for all statistical procedures and began by examining the distribution of the dataset. I then executed analyses to answer my research questions. I conducted tests to compare means of the 16 identity and social/cultural/economic capital indicators between interning and non-interning students. I then used four separate logistic regressions to examine the factors that significantly relate to undergraduate students’ participation in internships.

3.8.1. Outliers and Multicollinearity

Once the dataset was ready, I conducted preliminary analyses for outliers and multicollinearity. Outliers need to be examined and removed because the statistical analyses I used in this study assume a normal distribution of data. Outliers vary considerably from the distribution of the dataset, and are often due to errors in data collection (Howell, 2010). I found a normal distribution for my continuous variables, cumulative GPA and median household income.
Multicollinearity is the term for predictor variables that are highly correlated with one another (Howell, 2010). One method of measuring correlation is using Pearson’s Correlation Coefficient, which ranges from -1 (a strong negative relationship) to 1 (a strong positive relationship between variables) (Howell, 2010). A correlation of 0 indicates no relationship between items (Howell, 2010). Highly correlated items would have a correlation nearing -1 or 1, which would indicate multicollinearity. Having multicollinearity within my variables would be problematic, as one goal of my study was to discern the unique contribution that each variable has on internship participation. Pearson Correlation Coefficients of all independent variables are displayed in Table 2.
Table 2

Matrix of Pearson's Correlation Coefficient between independent variables

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex</td>
<td></td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Disability</td>
<td>-.02</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sexual Orientation</td>
<td>-.04</td>
<td>-.18**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Race</td>
<td>-.08</td>
<td>-.07</td>
<td>-.01</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Residence</td>
<td>-.01</td>
<td>-.08</td>
<td>-.02</td>
<td>-.04</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Quality of Interactions</td>
<td>-.06</td>
<td>-.02</td>
<td>-.06</td>
<td>-.00</td>
<td>-.06</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Supportive Environment</td>
<td>-.11*</td>
<td>-.03</td>
<td>-.02</td>
<td>-.03</td>
<td>-.04</td>
<td>-.47**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>8. Student-Faculty Interaction</td>
<td>-.01</td>
<td>-.02</td>
<td>-.02</td>
<td>-.09</td>
<td>-.03</td>
<td>-.31**</td>
<td>-.30**</td>
<td>—</td>
</tr>
<tr>
<td>9. Collaborative Learning</td>
<td>-.05</td>
<td>-.03</td>
<td>-.07</td>
<td>-.01</td>
<td>-.15**</td>
<td>-.16**</td>
<td>-.12**</td>
<td>-.36</td>
</tr>
<tr>
<td>10. Median Household Income</td>
<td>-.04</td>
<td>-.08</td>
<td>-.06</td>
<td>-.02</td>
<td>-.49**</td>
<td>-.02</td>
<td>-.00</td>
<td>-.01</td>
</tr>
<tr>
<td>11. First-Generation Status</td>
<td>-.02</td>
<td>-.01</td>
<td>-.08</td>
<td>-.08</td>
<td>-.34**</td>
<td>-.06</td>
<td>-.03</td>
<td>-.01**</td>
</tr>
<tr>
<td>12. Cumulative GPA</td>
<td>-.11*</td>
<td>-.14*</td>
<td>-.12*</td>
<td>-.12*</td>
<td>-.00</td>
<td>-.14*</td>
<td>-.15**</td>
<td>-.15</td>
</tr>
<tr>
<td>13. Higher-Order Learning</td>
<td>-.00</td>
<td>-.14*</td>
<td>-.08</td>
<td>-.03</td>
<td>-.12*</td>
<td>-.24**</td>
<td>-.27**</td>
<td>-.33</td>
</tr>
<tr>
<td>14. Reflective &amp; Integrative Learning</td>
<td>-.07</td>
<td>-.05</td>
<td>-.09</td>
<td>-.01</td>
<td>-.11*</td>
<td>-.19**</td>
<td>-.18**</td>
<td>-.31</td>
</tr>
<tr>
<td>15. Learning Strategies</td>
<td>-.01</td>
<td>-.00</td>
<td>-.02</td>
<td>-.01</td>
<td>-.02</td>
<td>-.12*</td>
<td>-.22**</td>
<td>-.34</td>
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<td>16. Quantitative Reasoning</td>
<td>-.15**</td>
<td>-.00</td>
<td>-.08</td>
<td>-.05</td>
<td>-.02</td>
<td>-.09</td>
<td>-.12*</td>
<td>-.18</td>
</tr>
</tbody>
</table>

*Correlation is significant at the .05 level (2-tailed). **Correlation is significant at the .01 level (2-tailed).
Table 2 (Continued)

Matrix of Pearson's Correlation Coefficient between independent variables

<table>
<thead>
<tr>
<th>Measure</th>
<th>9</th>
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<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sex</td>
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<tr>
<td>2. Disability</td>
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<td>3. Sexual Orientation</td>
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<td>4. Race</td>
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<td>5. Residence</td>
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<tr>
<td>6. Quality of Interactions</td>
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<td>7. Supportive Environment</td>
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<td>8. Student-Faculty Interaction</td>
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<tr>
<td>9. Collaborative Learning</td>
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<tr>
<td>10. Median Household Income</td>
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<tr>
<td>11. First-Generation Status</td>
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<td></td>
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<tr>
<td>12. Cumulative GPA</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>13. Higher-Order Learning</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>14. Reflective &amp; Integrative Learning</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>15. Learning Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Quantitative Reasoning</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at the .05 level (2-tailed). **Correlation is significant at the .01 level (2-tailed).
Only two independent variables had a moderate level of correlation (a Pearson Correlation Coefficient of over .50 or less than -.50), but none rose to the threshold of multicollinearity. Higher-Order Learning and Reflective and Integrative Learning were the most highly correlated factors with a Pearson Correlation Coefficient of -.55. Higher-Order Learning and Reflective and Integrative Learning are two NSSE engagement indicators categorized by NSSE under the theme of “Academic Challenge” (NSSE, 2019). A negative correlation between the two variables was somewhat surprising, but the variables were only moderately correlated. Since no other variables had a Pearson Correlation Coefficient higher than .5, I did not consider them highly correlated enough to be multicollinear. Thus, I noted correlations but kept all items in the dataset.

3.8.2. Comparing means with independent samples t-test and chi-square analysis

I initially ran descriptive statistics in SPSS to examine averages and distributions of the data. OIR grouped several NSSE questions using NSSE Data Codebooks, which combine individual question scores into larger composites (e.g., “Student-Faculty Interaction”) (NSSE, 2018b), which NSSE calls “engagement indicators” that have better explanatory power. I used eight of these engagement indicators in my analysis.

I then executed analyses to examine the differences in means between interning and non-interning students’ identities and social/cultural/economic capital indicators. I used an independent samples t-test for the ten continuous variables, which included GPA, median household income, and the eight NSSE Engagement Indicators I have identified: Student-Faculty Interaction; Quality of Interactions; Higher-Order Learning; Reflective
& Integrative Learning; Learning Strategies; Collaborative Learning; Supportive Environment; and, Quantitative Reasoning. As a part of the t-test I also calculated Cohen’s $d$ as a measure of effect size and to better understand the standardized difference between means (Cohen, 1988). Cohen’s $d$ is calculated as the difference of each group’s mean divided by the average of their standard deviations.

I used chi-square analysis to investigate differences in categorical variables between the interning and non-interning groups. The six categorical variables were all binary, and included disability (has a disability/does not have a disability), sexual orientation (LGBQ/straight), race (White/person of color), sex (male/female), residence (Vermont/out-of-state), and first-generation (first-generation student/not first-generation student).

3.8.3. Regression Analysis

Since the variable of internship participation is dichotomous (seniors report that they have or have not participated in an internship), I used a binary logistic regression. Logistic regression is used to estimate the probability of an event occurring (Howell, 2010). In this case, I used logistic regression to determine if identity or social, cultural, or economic capital indicators predict internship engagement. I ran one logistic regression containing all 16 individual factors to examine the predictive power of specific independent variables. I also ran four separate regressions, each combining independent variables to understand the predictive power of larger themes. The four regressions had themes of identity (containing items sex, race, residence, disability, and sexual orientation), social capital (Quality of Interactions, Supportive Environment, Student-
Faculty Interaction, and Collaborative Learning), economic capital (first-generation status and median household income), and cultural capital (Cumulative GPA, Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning). See Table 1 in Chapter One.

3.7. Chapter Summary

In this chapter I presented the methodology for this quantitative ex-post-facto study, which examines the differences in identities and social, cultural, and economic capital held by those who participate in internships compared to those who do not. I used this methodology to explore my theoretical/conceptual model presented in Figure 1, detailing the identities and capital required to engage in an internship. Using Bourdieu’s (1986) capital theory, I built a framework hypothesizing that students of dominant identities (men, able-bodied, straight, and White students) with higher levels of social, economic, and cultural capital engage in internships at higher levels than their peers who have subordinate identities and/or lower levels of capital.

In Chapter Three I presented the purpose statement and defined and operationalized the study variables. I provided an overview of the research design, including research questions, hypotheses, and use of the NSSE as a survey instrument. I offered descriptions of the institution and population that I examined, as well as an overview of data preparation, research procedure, and data analysis.
CHAPTER FOUR: RESULTS

This chapter details the descriptive and statistical results that I obtained through my analysis. I begin with an overview of descriptive statistics and demographic information about the sample. To answer my first research question, I review the results of my t-test and chi-square analyses. I address research question two using five separate regression analyses to predict internship participation. The chapter then concludes with a summary.

4.1. Descriptive Statistics

The population for the current study consisted of 350 senior students at the University of Vermont who took the National Survey of Student Engagement in 2017. Of the 350 students in the sample, 231 of those students (66%) engaged in an internship during their time in college and 119 students (34%) did not. The distribution of categorical demographic variables (sex, disability status, sexual orientation, race, residence, and first-generation status) is provided in Table 3.
Table 3

*Categorical Demographic Characteristics of Participants (N = 350)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>221</td>
<td>63</td>
</tr>
<tr>
<td>Male</td>
<td>129</td>
<td>37</td>
</tr>
<tr>
<td><strong>Disability Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has Disability</td>
<td>57</td>
<td>16</td>
</tr>
<tr>
<td>Does Not Have Disability</td>
<td>274</td>
<td>78</td>
</tr>
<tr>
<td>Unknown</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGBQ</td>
<td>46</td>
<td>13</td>
</tr>
<tr>
<td>Straight (heterosexual)</td>
<td>279</td>
<td>80</td>
</tr>
<tr>
<td>Unknown</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person of Color</td>
<td>44</td>
<td>13</td>
</tr>
<tr>
<td>White</td>
<td>291</td>
<td>83</td>
</tr>
<tr>
<td>Unknown</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-State Student (Vermont)</td>
<td>125</td>
<td>36</td>
</tr>
<tr>
<td>Out-of-State Student</td>
<td>225</td>
<td>64</td>
</tr>
<tr>
<td><strong>First-Generation Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-Generation</td>
<td>72</td>
<td>21</td>
</tr>
<tr>
<td>Not First-Generation</td>
<td>278</td>
<td>79</td>
</tr>
</tbody>
</table>

Note: Percentages may not add up to 100% due to rounding.

Information about the distribution of continuous variables (i.e., GPA, median household income, and the eight NSSE engagement indicators: Quality of Interactions, Supportive Environment, Student-Faculty Interaction, Collaborative Learning, Higher-
Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning) is provided in Table 4.

Table 4

*Distribution of Continuous Independent Variables*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative GPA †</td>
<td>3.32</td>
<td>0.41</td>
</tr>
<tr>
<td>Median Household Income (by zip code) ‡</td>
<td>90025</td>
<td>35840.57</td>
</tr>
<tr>
<td>Quality of Interactions Score §</td>
<td>40.43</td>
<td>10.49</td>
</tr>
<tr>
<td>Supportive Environment Score §</td>
<td>34.31</td>
<td>11.93</td>
</tr>
<tr>
<td>Student-Faculty Interaction Score §</td>
<td>24.47</td>
<td>14.75</td>
</tr>
<tr>
<td>Collaborative Learning Score §</td>
<td>36.17</td>
<td>13.76</td>
</tr>
<tr>
<td>Higher-Order Learning Score §</td>
<td>38.46</td>
<td>12.01</td>
</tr>
<tr>
<td>Reflective and Integrative Learning Score §</td>
<td>39.40</td>
<td>11.86</td>
</tr>
<tr>
<td>Learning Strategies Score §</td>
<td>36.59</td>
<td>13.51</td>
</tr>
<tr>
<td>Quantitative Reasoning Score §</td>
<td>32.08</td>
<td>15.34</td>
</tr>
</tbody>
</table>

Note: †GPA is on a 4.0 scale. ‡Income in US Dollars ($). §Composite NSSE Scores range from 0-60.

4.2. Research Question One

The first research question was “Do students’ identities and/or economic, social, and cultural capital indicators significantly differ depending on participation in an internship?” To answer this question for continuous variables, I conducted an independent samples t-test comparing students who engaged in internships to students who did not engage in an internship. I measured effect size using Cohen’s $d$ and summarized results in Table 5.
### Table 5

**Indicator Differences Between Individuals Who Engaged in an Internship and Those Who Did Not**

<table>
<thead>
<tr>
<th></th>
<th>Engaged in internship (n = 231)</th>
<th>Did not engage in internship (n = 119)</th>
<th>Cohen's $d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative GPA</td>
<td>3.38 ± 0.37</td>
<td>3.20 ± 0.47</td>
<td>3.93*** 0.43</td>
</tr>
<tr>
<td>Higher-Order Learning</td>
<td>39.18 ± 12.18</td>
<td>37.07 ± 11.60</td>
<td>1.56 0.18</td>
</tr>
<tr>
<td>Reflective &amp; Integrative Learning</td>
<td>40.42 ± 11.92</td>
<td>37.41 ± 11.54</td>
<td>2.26* 0.26</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>37.46 ± 12.82</td>
<td>34.91 ± 14.66</td>
<td>1.67 0.19</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>32.31 ± 15.74</td>
<td>31.63 ± 14.57</td>
<td>0.39 0.05</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>37.22 ± 13.05</td>
<td>34.16 ± 14.90</td>
<td>1.97* 0.22</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>26.59 ± 14.97</td>
<td>20.35 ± 13.46</td>
<td>3.82*** 0.44</td>
</tr>
<tr>
<td>Quality of Interactions</td>
<td>40.81 ± 10.49</td>
<td>39.70 ± 10.51</td>
<td>0.90 0.11</td>
</tr>
<tr>
<td>Supportive Environment</td>
<td>35.23 ± 11.78</td>
<td>32.51 ± 12.04</td>
<td>2.02* 0.23</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>94250.20 ± 36358.95</td>
<td>81664.26 ± 33267.37</td>
<td>3.06** 0.36</td>
</tr>
</tbody>
</table>

* $p < .05$. ** $p < .01$. *** $p < .001$
Results of the t-test demonstrated that six of the indicators significantly differed depending on internship engagement. There was a significant difference between GPA for students with internship engagement \( (M=3.38, SD=.37) \) compared to no internship engagement \( (M=3.20, SD=.47) \); \( t(348)=3.93, p<.001, d=.43 \). Cohen (1988) suggested that a Cohen’s \( d \) of .8 is considered a large effect size; .5 is a moderate effect size; and, .2 is a small effect size. In the case of GPA, the effect size \( (d=.43) \) was moderate.

While a much smaller effect size, there was also a significant difference for the NSSE engagement indicator Reflective and Integrative Learning \( t(348)=2.26, p=.024, d=.26 \). Students who interned \( (M=40.42, SD=11.92) \) had significantly higher scores for Reflective and Integrative Learning compared to those who did not engage in an internship \( (M=37.41, SD=11.60) \).

Scores on the NSSE engagement indicator Collaborative Learning also significantly differed between interning \( (M=37.22, SD=13.05) \) and non-interning \( (M=34.16, SD=14.90) \) students; \( t(348)=1.97, p=.049, d=.22 \). A Cohen’s \( d \) of .22 demonstrated only a small effect size for Collaborative Learning scores, but a significant one nonetheless.

Scores for Student-Faculty Interaction had the greatest effect size between students who interned \( (M=26.59, SD=14.97) \) and those who did not \( (M=20.35, SD=13.46) \); \( t(348)=3.82, p<.001, d=.44 \). The effect size for Student-Faculty interaction \( (d=.44) \) was a moderate one.

Supportive Environment NSSE engagement indicator scores were also significantly higher for interning students \( (M=35.23, SD=11.78) \) compared to students
without internships ($M=32.51$, $SD=12.04$); $t(348)=12.04$, $p=.044$, $d=.23$. The effect size for Supportive Environment would be considered small ($d=.23$).

Lastly, Median Household Income differed significantly between students who interned ($M=94250.20$, $SD=36358.95$) and those who did not intern ($M=81664.26$, $SD=33267.37$); $t(348)=3.06$, $p=.002$, $d=.36$. While the effect size was small, this result still indicated a significant difference in income between the two groups.

To examine differences between categorical variables (i.e., sex, disability, sexual orientation, race, first-generation status, and residence) for interning and non-interning students I used a chi-square analysis, the results of which are displayed in Table 6.
Table 6

*Chi Square Analysis of Categorical Variables and Internship Engagement*

<table>
<thead>
<tr>
<th></th>
<th>Engaged in internship (n = 231)</th>
<th>Did not engage in internship (n = 119)</th>
<th>$\chi^2$ (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>152</td>
<td>69%</td>
<td>69</td>
</tr>
<tr>
<td>Male</td>
<td>79</td>
<td>61%</td>
<td>50</td>
</tr>
<tr>
<td><strong>Disability Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has Disability</td>
<td>41</td>
<td>72%</td>
<td>16</td>
</tr>
<tr>
<td>Does Not Have Disability</td>
<td>180</td>
<td>66%</td>
<td>94</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGBQ</td>
<td>34</td>
<td>74%</td>
<td>12</td>
</tr>
<tr>
<td>Straight (heterosexual)</td>
<td>182</td>
<td>65%</td>
<td>97</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Person of Color</td>
<td>32</td>
<td>73%</td>
<td>12</td>
</tr>
<tr>
<td>White</td>
<td>191</td>
<td>66%</td>
<td>100</td>
</tr>
<tr>
<td><strong>First-Generation Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-Generation</td>
<td>40</td>
<td>56%</td>
<td>32</td>
</tr>
<tr>
<td>Not First-Generation</td>
<td>191</td>
<td>69%</td>
<td>87</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-State Student (Vermont)</td>
<td>70</td>
<td>56%</td>
<td>55</td>
</tr>
<tr>
<td>Out-of-State Student</td>
<td>161</td>
<td>72%</td>
<td>64</td>
</tr>
</tbody>
</table>

*Note: * $p < .05$. **$p < .01$. ***$p < .001$.**
I observed significant differences between interning and non-interning groups for two variables: first-generation status and residence. Students who were not first-generation college students were significantly more likely to engage in an internship experience compared to their first-generation peers. ($\chi^2 = 4.2$, df=1, $p = .036$). Students from outside of the state of Vermont were also significantly more likely to intern compared to their in-state peers ($\chi^2 = 10.38$, df=1, $p = .003$).

My first research question asked whether students’ identities and/or economic, social, and cultural capital indicators significantly differed depending on participation in an internship. Results demonstrated that several factors significantly differed when comparing interning and non-interning students. Students with internship experience were significantly more likely to have a higher cumulative GPA and median household income, higher scores on NSSE indicators Reflective and Integrative Learning, Collaborative Learning, Student-Faculty Interaction, and Supportive Environment, and were significantly more likely to be from outside the state of Vermont and not to identify as a first-generation college student.

4.3. Research Question Two

My second research question was “What are the factors that significantly relate to undergraduate students’ participation in internships?” I conducted five separate regression analyses to examine whether individual factors significantly predicted internship engagement, as well as whether the larger combined themes of identity, social capital, economic capital, and/or cultural capital predicted participation in an internship.
Results demonstrated that although only a few individual factors were significant predictors of interning, all larger themes were significant predictors.

I used binary logistic regression to estimate the impact of 16 individual factors on internship participation. Binary logistic regression models use data to predict the likelihood of a particular event (in this case, internship participation). For all analyses, I used a type I error rate of .05 to establish statistical significance. I used pseudo $R^2$ measures Cox and Snell’s $R^2$ and Nagelkerke $R^2$ to explain the amount of variation that is accounted for in each block, which is an indication of the model’s power (Hu, Shao, & Palta, 2006). Both Cox and Snell $R^2$ and Nagelkerke $R^2$ range from zero to one, with zero indicating that the model has no predictive power and one indicating that the model perfectly predicts results (Hu et al., 2006). The likelihood-ratio chi-square indicates the statistical significance of the overall model, and the Wald statistic demonstrates the statistical significance of each individual predictor variable (Howell, 2010).

I began with a binary logistic regression of all 16 factors to examine whether individual items predicted internship engagement, the results of which are displayed in Table 7.
Table 7

*Binary Logistic Regression of All Individual Factors Predicting Internship Engagement*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>OR</th>
<th>Wald Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>0.32</td>
<td>0.28</td>
<td>1.37</td>
<td>1.29</td>
</tr>
<tr>
<td>Disability</td>
<td>0.07</td>
<td>0.38</td>
<td>1.08</td>
<td>0.04</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td>0.19</td>
<td>0.41</td>
<td>1.21</td>
<td>0.22</td>
</tr>
<tr>
<td>Race</td>
<td>0.11</td>
<td>0.40</td>
<td>1.11</td>
<td>0.07</td>
</tr>
<tr>
<td>Residence</td>
<td>-0.42</td>
<td>0.32</td>
<td>0.66</td>
<td>1.67</td>
</tr>
<tr>
<td>Quality of Interactions</td>
<td>-0.03</td>
<td>0.02</td>
<td>0.97</td>
<td>4.58*</td>
</tr>
<tr>
<td>Supportive Environment</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>1.03</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>0.04</td>
<td>0.01</td>
<td>1.04</td>
<td>9.76**</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>0.22</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
<td>2.79</td>
</tr>
<tr>
<td>First-Generation Status</td>
<td>-0.12</td>
<td>0.35</td>
<td>0.89</td>
<td>0.11</td>
</tr>
<tr>
<td>Cumulative GPA</td>
<td>0.75</td>
<td>0.35</td>
<td>2.12</td>
<td>4.61</td>
</tr>
<tr>
<td>Higher-Order Learning</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.98</td>
<td>1.73</td>
</tr>
<tr>
<td>Reflective and Integrative Learning</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>0.69</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>0.00</td>
<td>0.01</td>
<td>1.00</td>
<td>0.12</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Likelihood ratio $\chi^2 = 41.070, p = <.001$

$-2 \log \text{likelihood} = 344.185, \text{Cox & Snell } R \text{ Square} = .126, \text{Nagelkerke } R \text{ Square} = .175$

* $p < .05$. ** $p < .01$. *** $p < .001$. 
The regression model containing all variables was statistically significant, $(16, N=350) = 41.070, p<.001$. This demonstrated that the model differentiated between interning and non-interning students and correctly classified 72.2% of cases.

Two individual factors were statistically significant in regression containing all variables. However, though Quality of Interactions ($B=-.03, p=.038$) and Student-Faculty Interaction ($B=.04, p=.002$) were both significant predictors of internship engagement, the odds ratio of each was so small that the results did not have much real-world significance. The exponential regression coefficient (odds ratio) indicates the likelihood of an event happening (Howell, 2010). For every one point decrease in Quality of Interactions score, a student is .97 times more likely to engage in an internship. A similarly negligible result showed that for every additional point in Student-Faculty Interaction score, the likelihood of a student engaging in an internship increases by 1.04 times. Overall, the model containing all 16 items had a small amount of explanatory power, accounting for 12.6 to 17.5% of the variance in internship participation.

After examining individual factors, I conducted four separate regressions that organized the 16 variables into separate themes: Identity, social capital, economic capital, and cultural capital (see Table 1 for the categorization of variables). Several individual items within these themes had significant predictive power.

The first theme of identity is displayed in Table 8 and contained the following five variables: sex, disability, sexual orientation, race, and residence. The identity theme accounted for only 3.7 to 5.2% of variance in internship participation. However, residence became statistically significant
when looking at only these five factors. Residence had an odds ratio of .46, meaning that students from the state of Vermont were .46 more likely to engage in an internship ($p=.002$). Put another way, students from outside of Vermont were 2.2 times more likely to engage in an internship than their peers from within the state.

Table 8

**Binary Logistic Regression of Theme One: Identity Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>OR</th>
<th>Wald Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>0.26</td>
<td>0.26</td>
<td>1.29</td>
<td>0.99</td>
</tr>
<tr>
<td>Disability</td>
<td>0.07</td>
<td>0.35</td>
<td>1.08</td>
<td>0.04</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td>0.38</td>
<td>0.39</td>
<td>1.46</td>
<td>0.95</td>
</tr>
<tr>
<td>Race</td>
<td>0.09</td>
<td>0.38</td>
<td>1.09</td>
<td>0.06</td>
</tr>
<tr>
<td>Residence</td>
<td>-0.77</td>
<td>0.25</td>
<td>0.46</td>
<td>9.30**</td>
</tr>
</tbody>
</table>

$\chi^2 = 11.604, p = .041$

$-2 \text{ Log likelihood} = 373.651, \text{ Cox & Snell R Square} = .037, \text{ Nagelkerke R Square} = .052$

* $p < .05$. **$p < .01$. ***$p < .001$

The second theme of social capital contained four items: NSSE engagement indicators Quality of Interactions, Supportive Environment, Student-Faculty Interaction, and Collaborative Learning. This theme correctly classified 67.6% of cases. Regression results for the social capital theme are displayed in Table 9.
Table 9

*Binary Logistic Regression of Theme Two: Social Capital Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>OR</th>
<th>Wald Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Interactions</td>
<td>-0.01</td>
<td>0.01</td>
<td>0.99</td>
<td>0.77</td>
</tr>
<tr>
<td>Supportive Environment</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>1.54</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>0.03</td>
<td>0.01</td>
<td>1.03</td>
<td>9.05**</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>0.47</td>
</tr>
</tbody>
</table>

$\chi^2 = 17.056, p = .002$

$-2 \text{ Log likelihood} = 431.669, \text{ Cox & Snell R Square} = .047, \text{ Nagelkerke R Square} = .066$

* $p < .05$, ** $p < .01$, *** $p < .001$

The theme of social capital also accounted for only a small amount of variance in internship participation; 4.7 to 6.6%. The social capital theme correctly predicted 66.9% of cases. Student-Faculty Interaction was the one item in theme two that was significant, but with an odds ratio of only 1.03 ($p=.003$), the result had limited real-world significance.

Theme three was economic capital and contained two items: first-generation status and median household income. Regression results for theme three are presented in Table 10.
Table 10

*Binary Logistic Regression of Theme Three: Economic Capital Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE$</th>
<th>$OR$</th>
<th>Wald Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Household Income</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
<td>6.77*</td>
</tr>
<tr>
<td>First-Generation Status</td>
<td>-0.34</td>
<td>0.29</td>
<td>0.71</td>
<td>1.43</td>
</tr>
</tbody>
</table>

$\chi^2 = 11.565, p = .004$

-2 Log likelihood = 437.159, Cox & Snell $R^2$ Square = .033, Nagelkerke $R^2$ Square = .045

* $p < .05$. **$p < .01$. ***$p < .001$.

The economic capital theme accounted for only 3.3 to 4.5% of variance in internship engagement. The economic capital regression model correctly predicted 65.3% of cases. While median household income had a significant Wald statistic (6.77, $p=.012$), an odds ratio of exactly 1.00 meant that this statistic was not meaningful.

The last of the four themes was cultural capital, containing the following five items: GPA, and NSSE engagement indicators Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, and Quantitative Reasoning. Theme four is presented in Table 11.
Table 11

*Binary Logistic Regression of Theme Four: Cultural Capital Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>OR</th>
<th>Wald Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPA</td>
<td>1.01</td>
<td>0.29</td>
<td>2.74</td>
<td>12.46 ***</td>
</tr>
<tr>
<td>Higher-Order Learning</td>
<td>0.00</td>
<td>0.01</td>
<td>1.00</td>
<td>0.08</td>
</tr>
<tr>
<td>Reflective &amp; Integrative Learning</td>
<td>0.02</td>
<td>0.01</td>
<td>1.02</td>
<td>1.47</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>0.01</td>
<td>0.01</td>
<td>1.01</td>
<td>0.83</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>0.00</td>
<td>0.01</td>
<td>1.00</td>
<td>0.02</td>
</tr>
</tbody>
</table>

χ² = 19.561, p = 0.002
-2 Log likelihood = 429.164, Cox & Snell R Square = 0.054, Nagelkerke R Square = 0.075

* p < .05. **p < .01. ***p < .001.

Cultural capital accounted for only 5.4 to 7.5% of variance in internship participation and correctly predicted 68.5% of cases. There was one significant variable within this theme, which was Cumulative GPA (B=1.01, p<.001). For every 1.0 increase in cumulative GPA, a student was 2.74 times more likely to engage in an internship.

Table 12 displays a summary of the five regression models, including the regression with all variables and the four themed regressions.
Table 12

*Summary of All Logistic Regression Models*

<table>
<thead>
<tr>
<th>Regression Theme</th>
<th>df</th>
<th>$\chi^2$</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell $R^2$</th>
<th>Nagelkerke $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>All individual factors</td>
<td>16</td>
<td>41.07***</td>
<td>373.65</td>
<td>0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Theme 1: Identity</td>
<td>5</td>
<td>11.60*</td>
<td>373.65</td>
<td>0.04</td>
<td>0.05</td>
</tr>
<tr>
<td>Theme 2: Social Capital</td>
<td>4</td>
<td>17.06**</td>
<td>431.67</td>
<td>0.05</td>
<td>0.07</td>
</tr>
<tr>
<td>Theme 3: Economic Capital</td>
<td>2</td>
<td>11.57**</td>
<td>437.16</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Theme 4: Cultural Capital</td>
<td>5</td>
<td>19.56**</td>
<td>429.16</td>
<td>0.05</td>
<td>0.08</td>
</tr>
</tbody>
</table>

* $p < .05$. ** $p < .01$. *** $p < .001$.

All five regression models were significant at the $p<.05$ level, though the full model of all 16 factors had the best predictive power of all of the models, $\chi^2 (16, N=350) = 41.07, p<.001$. Because the smaller themed regressions held relatively low predictive power, and less predictive power than the full model, I cannot conclude that my four themes of identity, social capital, economic capital, and cultural capital significantly predicted internship participation.

The most salient individual factors that emerged as predictors of internship engagement were cumulative GPA in the cultural capital theme and residence in the identity theme. Students with higher GPAs and students who were from outside of the state of Vermont were both significantly more likely to intern when compared to their peers with lower GPAs or those who are from hometowns in Vermont.
4.4. Summary

This chapter summarized the results of my two research questions. Research question one was “Do students’ identities and/or economic, social, and cultural capital indicators significantly differ depending on participation in an internship?” My analysis demonstrated that several different factors significantly differed between interning and non-interning students, including participants’ residence, first-generation status, cumulative GPA, median household income, and results on NSSE indicators Reflective and Integrative Learning, Collaborative Learning, Student-Faculty Interaction, and Supportive Environment.

Research question two asked, “What are the factors that significantly relate to undergraduate students’ participation in internships?” The themes of identity, social capital, economic capital, and cultural capital all significantly predicted internship engagement of the participants, but with low levels of predictive power. Individual factors of Quality of Interactions, Student-Faculty Interaction, residence, median household income, and GPA all significantly predicted participation in an internship, though the two predictors with the most real-world significance were GPA and residence.
CHAPTER FIVE: DISCUSSION

Research has established that internships are a credential correlated with valuable gains in college and employment (Aldas et al., 2010; Coco, 2000; Hurst et al., 2012; Kuh, 2008; Kuh et al., 2008; Sagen et al., 2000). Students who intern benefit from opportunities to reflect on their experiences, skills, and interests (Coco, 2000; Aldas et al., 2010). Internship experience is linked with better college retention and engagement, as well as a faster post-graduation job search and higher starting salary than non-interning students (D’Abate, 2010; Coco, 2000). Impressively, those who have interned are measured to have more workplace engagement than those who did not intern, even many years after the internship is over (Gallup, 2014a). However, even with all of these benefits, little is known about who engages in these experiences and whether internships are available to all students who seek them (Allen et al., 2013; Frenette, 2013; Grugulis & Stoyanova, 2012; Keeton, 1977; O’Connor & Bodicoat, 2017; Perlin, 2012).

There were two purposes of this dissertation. The first was to compare the identities and experiences of students with internship experience with the identities and experiences of non-interning students. The second purpose was to determine whether particular identities or experiences predicted internship engagement. Using the framework of Bourdieu’s (1986) capital theory, I categorized 16 factors into larger themes of identity, social capital, economic capital, and cultural capital to see if these themes could predict internship participation. I used binary logistic regression and comparison of means through a t-test and chi-square analysis to test my hypotheses that:
• Economic, social, and cultural capital indicators have a significant, positive relationship with students’ participation in an internship.

• Dominant identities (male, able-bodied, heterosexual, and White students) have a significant positive relationship with participation in an internship.

• Students’ identities and economic, social, and cultural capital indicators significantly differ depending on whether the student participated in an internship or not.

This chapter provides a summary of results, explanation of the findings, and limitations and proposed changes for the current study. I follow with implications for practice and policy and directions for future research.

5.1. Summary of Results

My first research question was, “Do students’ identities and/or economic, social, and cultural capital indicators differ depending on participation in an internship?” A t-test and chi-square analysis revealed that several factors significantly differed between interning and non-interning students. Participants with internship experience were significantly more likely to be from outside of Vermont, to not identify as a first-generation student, have a higher cumulative GPA and median household income, and have higher scores on the NSSE engagement indicators Reflective and Integrative Learning, Collaborative Learning, Student-Faculty Interaction, and Supportive Environment. The results demonstrated support for my hypothesis that students’ identities and social, economic, and cultural capital indicators would differ depending on engagement in an internship.
My second research question asked, “What are the factors that significantly relate to undergraduate students’ participation in internships?” I used five separate regression analyses to measure the extent to which 16 chosen variables could predict internship engagement. The first regression used all 16 variables. The following four regressions split the 16 variables into categorical themes I developed based on Bourdieu’s (1986) capital theory. The themed regressions were based on identity, social capital, economic capital, and cultural capital.

Though all five regression models significantly predicted internship engagement, the four themed regressions had low statistical power. This led me to conclude that the four thematic areas I created were no better at predicting internship engagement than simply considering all of the 16 factors that I had selected to examine.

Although the themed regressions had only modest predictive power, several individual factors emerged as significant predictors of internship engagement only after I examined them within the smaller themed regression analyses. I did not find support for my hypothesis that dominant identities (male, able-bodied, heterosexual, and White students) had a significant positive relationship with internship participation. However, the variables of Quality of Interactions, Student-Faculty Interaction, residence, median household income, and GPA were all significant predictors of internship participation. GPA and residence had the most real-world significance in the current study, demonstrating that for every 1.0 increase in GPA a student was 2.74 times more likely to engage in an internship, and that students from out of state were 2.2 times more likely to intern compared to participants from the state of Vermont.
It is notable that GPA and state residence rose to significance in the smaller themed regressions yet were no longer significant in the larger 16 variable model. One reason for this may be due to Simpson’s paradox (Howell, 2010). Howell described Simson’s paradox as “the situation in which the relationship between two variables, seen at individual levels of a third variable, reverses direction when you collapse over the third variable” (p. 157). In other words, the full model may introduce one or more confounding factors that could obscure the significance of GPA and state residence on internship participation. Although I examined potential issues of multicollinearity (Table 2) and found none, a moderately correlated variable such as median household income with residence (a Pearson Correlation Coefficient of -.49, \( p < .01 \)) or a weaker (yet significant) correlation of cumulative GPA and first-generation status (Pearson Correlation Coefficient of -.17, \( p < .01 \)) may have been examples of confounding or mediating variables that obscured the significance of GPA and residence. In short, more research is needed to create a good-fit regression model that minimizes the effects of confounding factors.

### 5.2. Explanation of Findings

The most surprising result of the current study was the magnitude of influence of residence and GPA when predicting internship engagement. In the identity-themed logistic regression (Table 8), students from outside of Vermont were more than twice as likely to engage in an internship compared to students from within the state.

This dissertation focused solely on benchmarking internship engagement; it did not explore issues of student aspiration or potential barriers to participation. Thus, I did
not investigate questions such as whether a student’s state residence affected their motivation for finding an internship. It could be the case that students from Vermont are simply less interested in this kind of experience. Or, perhaps students from Vermont have fewer opportunities to choose from or experience some other barrier to participation. In short, more research is needed to clarify the reasons for differences in internship engagement by geography and GPA. However, given that the information I have thus far, I have hypothesized reasons for these differences.

One possibility for internship disparity by state residence could be a difference in career aspiration. A relatively low rate of higher education enrollment in Vermont could serve as an analogous phenomenon to lower internship engagement for in-state students. Vermont performs extremely well with high school completion rates; the state graduated 89.1% of its high school students in 2016-2017, outpacing the national high school completion rate of 84.6% (National Center for Education Statistics, 2019). However, compared to the national average, those from Vermont are much less likely to pursue post-secondary education. Only 52.3% of Vermont students enrolled in postsecondary opportunities immediately after high school in 2017, compared to a national rate of 66.7% (New England Secondary School Consortium, 2018). The Vermont Student Assistance Corporation (VSAC) (2015) published a special report on postsecondary enrollment, positing that although reasons for low enrollment rates are complex, geography and aspirations appear to be significant factors that influence students’ pursuit of further education. Although college-going rates are an entirely different research
project, investigating the connection of rurality and education/career aspiration could shed light on differences in internship engagement by geography.

Allen and Hollingworth (2013) examined the intersection of young peoples’ geographic locations and career aspirations in the “knowledge economy” (that is, a creative and knowledge-based world of work). They described how “social class and place come together in powerful and complex ways to shape young people’s aspirations and capacity for mobility for and through work in the knowledge economy” (p. 513). Examining the interplay between aspiration and geography within the state of Vermont could provide additional context for internship participation rates.

Another possibility for lower engagement may be an issue of internship availability in rural areas. During the summer break, when many internships occur and students return to their hometowns, those from Vermont are bound for a much more rural setting compared to their out-of-state peers. Vermont is tied with Maine for being the most rural state in the United States, with 61% of the state population residing in a rural area (U.S. Census Bureau, 2019). Some research has already illustrated the “geographical inequalities” (Grant-Smith & McDonald, 2017, p. 8) that can arise in internships, and how a student’s location can determine one’s access to internships (Allen et al., 2013; Allen & Hollingworth, 2013). For students hailing from a rural location, there simply may not be enough summer internship opportunities available to meet student demand, or a mismatch with a particular student’s major, interests, or skills.

Regarding GPA, there are several theories for why an increase in GPA predicts such a significance increase of internship likelihood. Knouse and Fontenot (2008) found
that students with higher grade point averages were more likely to receive internship offers, though they acknowledged that it was unknown whether this was due to employers’ preferences, or because students with higher grades were more motivated or more capable workers. In contrast, Binder, Baguley, Crook, and Miller (2015) found that the opposite may also be true, and that internship experience positively impacts students’ grade point averages. In short, more research is needed to better understand the relationship between GPA and internship attainment.

Beyond GPA and residence results, it was surprising that there were a number of differences between the interning and non-interning participant pools (i.e., residence, first-generation status, GPA, median household income, and have higher scores on Reflective and Integrative Learning, Collaborative Learning, Student-Faculty Interaction, and Supportive Environment), but that most of those factors did not significantly predict engagement in an internship. More research on these issues, perhaps with a larger participant pool and fewer predictor variables, may provide more clarity on the factors that influence internship participation.

5.3. Limitations and Proposed Changes

All studies have their limitations, and mine was no exception. My study used data from the University of Vermont, limiting generalizability to other populations. Because I used data from only one year, the 2017 National Survey of Student Engagement, the study serves as more of a snapshot of a single moment, rather than a long-range understanding of internship participation over time. Examining data from all institutions
taking the National Survey of Student Engagement or using multiple years of data would increase generalizability of the findings.

I also made the decision to exclude students in particular colleges from my participant pool. As detailed in Chapter Three, two colleges at UVM require internship or practicum participation, so I removed those colleges from the population to instead focus on students who had the option (and were not required) to engage in an internship. Again, this decision may also limit generalizability to other schools or programs.

My pool contained a relatively small number of participants (n=350) for the current study. A more robust study could include multiple universities or focus on a larger school to increase the size of the participant pool.

In this study, I converted two identity variables into binary variables instead of keeping all categorical options. These binarized variables included sexual orientation (LGBQ/straight) and race (Person of Color/White). I made this decision to ensure that I captured all experiences, rather than losing meaning from categories with a very small n. This decision collapsed many identities into generalized LGBQ and People of Color categories that did not represent the full breadth of identity or experience. One recommendation to better capture and analyze a wide variety of identities would be to use Mayhew and Simonoff’s (2015) effect coding approach for examining self-identification categorical covariates. Mayhew and Simonoff’s (2015) coding procedure not only eliminates the need for essentializing one group’s experience over another’s, but also allows students to be analyzed based on their self-identified multi-raced selection. In addition, effect coding allows a
more accurate assessment of the slopes representing any one racial group
by including the partial estimates for this racial group when it is selected
as part of a bi- or multi-raced category. (pp. 1-2)

While on the topic of coding identity, it would also be optimal to use gender
rather than sex as a variable in future studies. I used sex as a research variable in my
study because it was information that was easily accessible from the UVM Office of
Institutional Research, and because there was no missing data for that variable. However,
sex is reflected by one’s hormones and sex organs (Clayton & Tannenbaum, 2016),
which are unlikely to be a significant influencer of internship participation. In contrast,
gender

    comprises the social, environmental, cultural, and behavioral factors and choices
    that influence a person’s self-identity and health. Gender includes gender identity
    (how individuals and groups perceive and present themselves), gender norms
    (unspoken rules in the family, workplace, institutional, or global culture that
    influence individual attitudes and behaviors), and gender relations (the power
    relations between individuals of different gender identities). (p. 1)

    Given the definition above, gender is a much more applicable variable to study for
the purposes of educational research. Future studies could use gender as it is self-reported
by participants on the National Survey of Student Engagement and also use Mayhew and
Simonoff’s (2015) effect coding method to more comprehensively understand
represented groups.
One noteworthy limitation of this study is the method I used to estimate participants’ income. Due to concerns about privacy and FERPA, I did not have access to information about students’ incomes or Pell eligibility, the latter of which is often used as a research indicator for low-income students. Thus, I used the median household income of each student’s zip code as a proxy for wealth. This is an imperfect system, as it does not represent that person’s individual financial reality, only the median income in their whole zip code. If future research could utilize participants’ reported household income or eligibility for Pell grants, it would more accurately represent participants’ financial situations.

A future research study could also use multilevel exploratory factor analysis to create themes or commonalities in participants’ identities and experiences, rather than deciding on categorical themes a priori, as I did in this study. Conducted in SPSS statistical analysis software, factor analysis is used to summarize common themes, or latent constructs, amongst several larger variables (L. S. Meyers, Gamst, & Guarino, 2017). Latent constructs are what emerge during the factor analysis process (Reise, Ventura, Nuechterlein, & Kim, 2005), and the process of exploratory factor analysis could provide emergent themes within a set of variables. Multilevel factor analysis is a useful tool for examining a “series of building blocks that use sets of factor structures” (Goldstein & Browne, 2002). Goldstein and Brown described multiple levels of factor analysis as for “nested structures,” such as students within classrooms within schools (2002). The current study examines nested levels. There are students; their socioeconomic backgrounds, academic capabilities, and social connections. Multilevel
factor analysis could serve as alternate way to build and examine the latent factors that make up larger themes of Bourdieuan capital.

5.4. Implications for Practice and Policy

In this section, I outline approaches for practice and policy that address issues surfaced in the current study. The strategies I offer range widely in terms of the amount of funding and person-power required to implement them. My proposals are ordered from the most easily implementable to the more ambitious plans that require intensive resources.

When considering the conundrum of how to increase internship participation, a seemingly obvious answer would be to institute an internship requirement in academic programs. But, despite authoring a dissertation about the importance of engagement in and access to internships, I am reluctant to recommend an internship requirement. Hora (2018, 2019) outlined the numerous challenges with university internship requirements, noting that requiring students to intern could exacerbate financial distress for the many students who are already food-insecure, homeless, or struggling to pay rising tuition costs. Colleges’ limited ability to supervise and oversee internship opportunities means that an internship requirement would leave an increasing number of student interns vulnerable to exploitation and put many students in a difficult position of scrambling for an internship opportunity with minimal support (2018, 2019). Instead, Hora (2018) recommended focusing more on the quality of internship experiences, and slowly and intentionally growing the number of experiences to match student need. The amount of staff power to support internships is intensive; Hora noted that
Running a high-quality program takes a number of experienced employees who can advise students, find appropriate placements, coordinate with employers, and troubleshoot problems. For instance, it takes a full-time career-services director, three employer-relations coordinators, and five part-time advisers to run the internship program for the 2,550 undergraduates in the University of Wisconsin at Madison’s business school. (para. 20)

Though it is not easy to develop high-quality, supported internship opportunities, several programs of this nature already exist at UVM. The College of Arts and Sciences has developed several “Communities of Practice” that offer local, highly-supervised, group internship opportunities within the fields of media, journalism, rural planning, legislation, and local research (University of Vermont, 2019b). The College of Arts and Sciences also partners with outside organizations to offer semester-long, credit-bearing internship programs in Washington DC, New York City, and Boston (University of Vermont, 2019a). The Rubenstein School of the Environment and Natural Resources offers a Perennial Summer Internship Program, providing paid, intensive internships with environmentally-focused organizations (University of Vermont, 2019d). The Perennial Program Internship sites enter into a cost-share agreement with UVM, could serve as an incentive for the internship site to create a high-quality internship experience in exchange for accomplished and skilled interns and additional financial support to pay those students (University of Vermont, 2019d). Other organizations such as the Shepherd Higher Education Consortium on Poverty and the U360 Business Sustainability Internship Program collaborate with UVM offices to offer highly structured internship
experiences to several students each year (University of Vermont, 2019e, 2019f). In short, intentional, organized, and high-quality internship experiences already exist at UVM. However, these experiences are offered through a wide array of UVM offices, with little coordination. No centralized office or website brings all of these experiences into one place. Creating an institutional structure to gather all of these programs would help consolidate resources and coordinate cohesive practices and communication.

Developing high-quality internships with Vermont employers is another recommendation that emerges from the study. However, in a similar way to how UVM struggles to bring internship programs together, Vermont-based workforce development groups are a complex, disparate web of programs, projects, and initiatives. A number of organizations are currently working on economic development issues in Vermont and considering internships as a tool to grow and develop a talented workforce. The following groups express a goal of developing workforce training, opportunities, and/or policy in the state of Vermont and include internship development as a strategy:

- Advance Vermont (formerly 70x2025VT)
- Brattleboro Development Credit Corporation Internship Program
- Careers CLiC (Connecting Learning in the Community)
- Institute for American Apprenticeships at Vermont HiTec
- State of Vermont Workforce Development Board
- VBSR (Vermont Business for Social Responsibility) Intern Program
- Vermont Community Foundation’s Pathways to Promising Careers
- Vermont Futures Project
• Vermont Internship Professionals Network

• Vermont Talent Pipeline Management

(Advance Vermont, 2019; Brattleboro Development Credit Corporation, 2019; Careers CLiC, 2019; Institute for American Apprenticeships, 2019; UVM Listserv System, 2019; VBSR, 2019; Vermont Community Foundation, 2019; Vermont Department of Labor, 2019; Vermont Futures Project, 2019; Vermont Talent Pipeline Management, 2019). Bringing these groups together in a consortium would allow them to communicate, share resources, and reduce duplication as they work on similar initiatives.

Several of the workforce development groups have researched economic policy issues in relation to internships and recommend growing them. However, none that I could find provide specific internship development tools for employers, who are the ones actually creating internships. Developing more internship opportunities within the state may also help in-state students find opportunities in or near their hometowns. A concerted outreach effort from units at UVM and/or the Vermont Department of Labor to Vermont-based organizations could grow the number of available internships. Gathering employers for a large internship best practices conference and providing an “internship toolkit” (UCLA Career Center, 2018) would also provide employers with specific steps to plan, promote, execute, and assess an internship program.

The most salient implication from the current study is that students from the state of Vermont need more encouragement and support to engage in internships to increase parity with their out-of-state peers. One strategy for increasing internship engagement would be to develop internship scholarship funding for students who hail from the state
of Vermont. UVM currently offers internship scholarship funds to cover costs of living during a summer internship (University of Vermont, 2019c). Dedicating some of these funds specifically to in-state students could help support them in their internship endeavors.

Career counselors can also be powerful conduits for disseminating information to students about internship opportunities and accessibility. Before recommending internships, career counselors should listen carefully for potential obstacles to students’ engagement. For an example, it may help to return to Gloria and Marcus, the student amalgamations I presented in Chapter One. Gloria is an example of concerted cultivation; she is a student who understands that internships are a valuable opportunity that she can seize with her cultural, social, and economic capital. Gloria has the financial support from her parents to engage in an international internship and the social capital to navigate professional networks to find other internship opportunities. In contrast, Marcus is a student for whom internships are an unfamiliar landscape. A career counselor working with Marcus could note the number of hours a week he works at Sodexo and Lowe’s to make ends meet and ask him about his need for payment in an internship. A career counselor might be able to recommend alternative paid internships or share information about UVM’s internship scholarships. Considering Marcus’ lower level of social capital, a career counselor might go beyond their typical supports and resources and offer to connect Marcus to industry professionals and the network to which he does not yet have access. To summarize, career counselors should be listening for signs of students’ real or perceived barriers to engagement and be ready with resources and supports that can
deconstruct these barriers. To do that, career counselors need to familiarize themselves with high-quality, supportive, and paid internship opportunities and scholarships so that they can recommend them to students for whom unpaid work is not an option.

The results of this study also indicate that students with lower GPAs may need more support in their internship endeavors. It is difficult to know exactly why a lower GPA was so strongly associated with lower internship participation rates. It is possible that students with GPAs are simply less motivated or equipped to engage in an internship opportunity. Employers may also favor applicants with higher GPAs. However, though it is easy to assume that a higher GPA predicts internship engagement, it could also be the case that a lack of internship engagement has a detrimental impact on a student’s GPA. More research would illuminate possible causes for this correlation. Additionally, offering on-campus internship opportunities for students of all GPA levels could provide a first step in professional experience for students who may not otherwise be able to secure an internship.

If UVM were to build an on-campus internship, it would create more easily-accessible internship opportunities with low barriers to entry. An on-campus internship program at Clemson (Nunamaker & Cawthon, 2018) could serve as a model, where the centralized Career Center developed placements within departments and offered matching dollars to fund the interns’ salaries. Offering priority to in-state and low-income students could help this program serve the needs of those who need it most.

A final recommendation would be to encourage and incentivize Vermont-based organizations to offer additional paid internship opportunities. Offering cost-matching for
intern’s salaries, perhaps from the Department of Labor, could serve as an incentive for organizations to develop new internships. Rubenstein’s Perennial Internship Program could serve as a model for this kind of program, but with matching funds coming from a state-run program such as the state’s Workforce Education and Training Fund. Funding for interns’ salaries could possibly also come from an expansion of Federal Work-Study dollars.

5.5. Future Directions for Research

The theoretical framework for this dissertation was based on Bourdieu’s (1986) capital theory, Lareau’s (2011) observations of “concerted cultivation” in child-rearing, and Yosso’s (2005) community cultural wealth framework. Though the current study did not yield evidence to definitively state that social, economic, and cultural capital affected internship engagement, other methodological approaches and epistemologies may elucidate a better understanding of internship participation. Phenomenology could better capture participants’ lived experiences about expectations, experiences, and challenges around gaining internship experience. Rooted in philosophy, phenomenology is concerned with the subjects’ constructed consciousness and posits that there is no one objective reality (Creswell, 2013). Reality is the interpretation of the participants experiencing the phenomenon, and the researcher aims to describe the reality of the phenomenon from the participants’ perspective. Phenomenology has a main tenet of respect for subjects, who are seen as co-researchers (Treager Huber, 2010). The person initiating the research is not an authority figure who is the expert on the phenomenon, rather, the participants are the experts on their own experiences and provide their
narrative on the subject matter. Returning to the portraits I provided of Gloria and Marcus that I presented in Chapter One, I would like to interview the students whom I amalgamized for those depictions to more fully understand their lived experiences. I would especially like to investigate any influences of participants' identities; perceived social, cultural, and economic capital; and possible experiences of parental concerted cultivation on participation in internships.

The current study examined trends in internship participation by identity and social, economic, and cultural capital. Although useful for discerning patterns in internship engagement, this study did not explore the reasons for why out-of-state students and those with higher GPAs were so much more likely to engage in internships. A study examining motivation and potential barriers to access would shed more light on the reasons for the disparity in internship participation. Specifically, it would be useful to ask about students’ desire to find an internship compared to how likely they were to secure an internship experience. If there is a population of students who are motivated to intern but cannot do so, it would be imperative to analyze the barriers to participation.

Another recommendation would be to examine other predictors in internship participation. I chose to study a selection of factors from the National Survey of Student Engagement, but there are still many others left to examine. It would be useful to analyze the impacts of hours spent working, providing care for others, time spent preparing for class, transfer status, the proximity of student residence to campus, membership in a fraternity/sorority, and status as an athlete or veteran. Analyzing trends in internship participation by major and industry of interest would also clarify which specific
populations need additional support or opportunities. More research is also needed within professional majors such as education and nursing (which the current study excluded).

In general, it will be important for more researchers to investigate internships in the future. I mentioned in Chapters One and Two that the ambiguity around internship data collection, policy, and practices may be what allow a potentially inequitable system to persist and thrive. While there are ample data to demonstrate the successful outcomes of internships (see Chapter Two), there is still very limited information available about access to these opportunities. More clarity on internship access would help researchers, policy makers, employers, educators, and students make more educated decisions and address issues of inequity.

5.6. Summary

As internships become an increasingly common experience and credential, more examination of them is essential. Internships can provide powerful learning opportunities and important employment credentials for the students who engage in them. They serve as a cost-saving measure and a talent pipeline for employers. Colleges promote them as important experiences for career, academic, and personal growth. However, internships should not be viewed as a panacea for all problems.

The current study suggests that internships are not necessarily an experience that is attainable by all students. Analysis demonstrated that those from outside the state of Vermont were more than twice as likely to engage in internships compared to their in-state person. For every 1.0 increase in GPA, students were also more than twice as likely to engage in an internship.
Though more research is needed to fully understand trends in internship participation, this study provides baseline data on the identities and experiences of students who participate in internships. My hope is that this dissertation also brings attention to an under-examined area of practice and sheds light on issues of educational equity.
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Appendix A:

Application to the Institutional Review Board (IRB)

Human Subjects Research Protocol

PROTOCOL SUMMARY

Project Title: As the world interns: The impact of identity and social, economic, and cultural capital on college student internship engagement

Principal Investigator: Amanda Chase

TYPE OF REVIEW
Which type of IRB review are you requesting?

Full [ ] Expedited [ ] Complete category.

Your research may be expeditable if the research activities (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the following categories: (CHECK THE CATEGORY(IES) THAT APPLY.

(1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met.
   (a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (NOTE: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review).
   (b) Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.

(2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows: (a) from healthy, non-pregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week: or (b) from other adults and children, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.

(3) Prospective collection of biological specimens for research purposes by noninvasive means.

(4) Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves.

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.)

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3)).

PURPOSE AND OBJECTIVES

Purpose: The importance of the research and the potential knowledge to be gained should be explained in detail. Give background information.

The purpose of this study is to examine the identities and cultural, social, and economic capital held by University of Vermont undergraduates who participate in internships, compared to the identities and cultural, social, and economic capital of those who do not participate in internships.

References: Include references to prior human or animal research and references that are relevant to the design and conduct of the study.

A summary of “the history of the engagement concept and the circumstances that led to development of the National Survey of Student Engagement (NSSE).” Kuh also “review[s] the substance and evolution of NSSE and its impact on institutional researchers.”


“THEORIES OF INVOLVEMENT AND QUALITY OF EFFORT posit that student engagement in academic activities is critical to success. College officials invest substantial resources in activities and facilities to encourage student involvement, yet some reports find that many students study few hours per week and commit little time to academic activities. A critical question we must ask is: Does involvement lead to authentic gains in student success? Results from the 2008 National Survey of Student Engagement at one research university found that higher levels of engagement in a variety of curricular and cocurricular activities significantly contribute to cumulative GPA and students’ perception of the overall academic experience. Females and full-time students who spent more time preparing for class or otherwise engaging in academic tasks earned a higher GPA and reported higher satisfaction with their overall academic experience. Implications for program planning and resource allocation are discussed.”

Objectives: Clearly state the primary and secondary objective(s) of the study.

- To examine the factors that significantly relate to undergraduate students’ participation in internships
- To determine if and how students’ identities and/or economic, social, and cultural capital indicators differ depending on participation in an internship

### METHODS AND PROCEDURES

**Study Design:** Describe the research design, including a description of any new methodology and its advantage over existing methodologies.

This ex post facto, quantitative study uses secondary analysis to examine two data sources: results from the 2017 National Survey of Student Engagement (NSSE) at the University of Vermont, and institutional information obtained through the University of Vermont’s Office of Institutional Research.

Demographic and identity information such as GPA at the time of the NSSE survey, hometown zip code, college, full-time/part-time status, age at time of the NSSE survey, and major are information that are part of students’ records and are accessible by the Office of International Research (OIR). OIR has offered to merge student demographic and identity institutional data with results from the NSSE for the purpose of this dissertation. OIR will deidentify student data but keep the identifier separately (no name, ID numbers, or emails).

**Procedures:** Describe all procedures (sequentially) to which human participants will be subjected. Identify all procedures that are considered experimental and/or procedures performed exclusively for research purposes. Describe the types, frequency and duration of tests, study visits, interviews, questionnaires, etc.

Note: A clinical research protocol may involve interventions that are strictly experimental or it may involve some aspect of research (e.g., randomization among standard treatments for collection and analysis of routine clinical data for research purposes). It is important for this section to distinguish between interventions that are experimental and/or carried out for research purposes versus those procedures that are considered standard therapy. In addition, routine procedures performed solely for research purposes (e.g., additional diagnostic/follow-up tests) should be identified.

This ex post facto study will only use previously-collected data – no new procedures will be used with human subjects.

The data were previously collected in 2017 by the UVM Office of Institutional Research (OIR) through the National Survey of Student Engagement (NSSE). All first-year and senior students at UVM were invited, and students self-selected to participate in the survey. The surveys were completed online by UVM undergraduates, either on students’ smartphones, tablets, or computers. I will ask OIR to combine NSSE results with UVM’s institutional data, which include: Students’ GPA at the time of the NSSE survey, hometown zip code, college, full-time/part-time status, age at time of the NSSE survey, and major. The institutional information is a part of students’ records at the University of Vermont.

OIR will combine NSSE and the institutional data and then deidentify participants using unique, random numbers. A master key will be kept by OIR and I will not have access to anything that identifies the participants.
To create a proxy for economic income, I will cross-reference each subject’s hometown zip code with median household income, which is publicly available information from the US Census Bureau.

Describe required screening procedures performed before enrollment and while on study.

In 2017 the UVM Office of Institutional Research provided student emails to NSSE to invite students to participate in the National Survey of Student Engagement

For research involving survey, questionnaires, etc.: Describe the setting and the mode of administering the instrument and the provisions for maintaining privacy and confidentiality. Include the duration, intervals of administration, and overall length of participation.

Not applicable

The survey, previously administered in 2017 by the UVM Office of Institutional Research and the Indiana University Center for Postsecondary Research, uses high standards of confidentiality and privacy. The project is already governed by the Indiana University Bloomington Institutional Review Board. See http://nsse.indiana.edu/html/administration_protocol.cfm for more information. There are over 400 institutions who also submit their student information to the NSSE for analysis.

### TYPES OF PROCEDURES

<table>
<thead>
<tr>
<th>Survey (mail, telephone, in-person, on-line)</th>
<th>Blood drawing: Vol.</th>
<th>Type &amp; Amt.</th>
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<tbody>
<tr>
<td>Medical exams/history</td>
<td>Surgery</td>
<td>Collection of Urine and/or Feces</td>
</tr>
<tr>
<td>Deception *see below</td>
<td>Drug Administration *see 14.</td>
<td>HIV Testing</td>
</tr>
<tr>
<td>Observation</td>
<td>Device Use *see 14.</td>
<td>Ultrasound (e.g. echocardiogram)</td>
</tr>
<tr>
<td>Photographs</td>
<td>Exercise</td>
<td>Imaging (e.g. CT scan, DEXA, mammogram, PET scan, SPECT)</td>
</tr>
<tr>
<td>Audio Recording</td>
<td>Diet</td>
<td>Use of Radiation treatment</td>
</tr>
<tr>
<td>Video Recording</td>
<td>Pathology Specimens</td>
<td>Use of Radioactive substances (e.g. radiolabeled antibodies, drugs or contrast agents)</td>
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<tr>
<td>Interviews in person or by phone</td>
<td>Genetic Materials (DNA)</td>
<td>MRI (for treatment studies)</td>
</tr>
<tr>
<td>Focus Groups</td>
<td>Questionnaires</td>
<td>MRI (not for treatment studies)</td>
</tr>
<tr>
<td>Review of prospective data</td>
<td>Diaries</td>
<td>Tissue (obtained for clinical purposes)</td>
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<tr>
<td>Recording of identifiable Data</td>
<td>Pregnancy Tests</td>
<td>Tissue (obtained solely for research)</td>
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<td>Electrocardiograms</td>
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<tr>
<td>Sensitive Data (criminal or sexual conduct, drug or alcohol conduct or use)</td>
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<td>Other (specify)</td>
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*Deception typically involves withholding information from the potential subject and would require an alteration to the consent process.

### Statistical Considerations:

Delineate the precise outcomes to be measured and analyzed. Describe how these results will be measured and statistically analyzed. Delineate methods used to estimate the required number of subjects. Describe power calculations if the study involves comparisons. Perform this analysis on each of the primary and secondary objectives, if possible.

Once OIR provides me with the merged dataset, I will add information of median household income for each participant’s hometown zip code. Data detailing 2016 median household income by zip code is publicly available through the US Census Bureau’s American FactFinder system.

After preparing the dataset, I will run descriptive statistics in SPSS to examine averages and distributions of the data. I will initially group and analyze several NSSE questions using NSSE Data Codebooks, which combine individual question scores into larger composites (e.g. "Student-Faculty Interaction"), which NSSE calls "engagement indicators" that have better explanatory power. For each factor (cultural, social, or economic capital) I will combine the relevant engagement indicators and demographic other data using multilevel exploratory factor analysis. Conducted in SPSS statistical analysis software, factor analysis is used to summarize common themes, or latent constructs, amongst several larger variables (L. S. Meyers, Gamst, & Guarino, 2017). Latent constructs are what emerge during the factor analysis process (Reise, Ventura, Nuechterlein, & Kim, 2005), and the process of exploratory factor analysis will allow me to observe and utilize these emergent themes within a set of variables.

Human subjects protocol form 11/19/2018
Medical Center

be as simple as a description of the extensively depending on the potential risks, size, and complexity of the research study. For a minimal risk study, a DSMP c

Data Safety and Monitoring:

X

subject and include in the consent form as well.

Therapeutic Alternatives

investigates issues of equity in experiential education.

Because the risk of the above scenarios are so small, the research I am proposing seems like a worthwhile endeavor, as it

None of the de

-identified raw data would be published—only my statistical analysis.

Because the risk of the above scenarios are so small, the research I am proposing seems like a worthwhile endeavor, as it investigates issues of equity in experiential education.

Therapeutic Alternatives:

List the therapeutic alternatives that are reasonably available that may be of benefit to the potential subject and include in the consent form as well.

Not Applicable

Data Safety and Monitoring: The specific design of a Data and Safety Monitoring Plan (DSMP) for a protocol may vary extensively depending on the potential risks, size, and complexity of the research study. For a minimal risk study, a DSMP could be as simple as a description of the Principal Investigator's plan for monitoring the data and performance of safety reviews or it could be as complex as the initiation of an external, independent Data Safety and Monitoring Board (DSMB). The UVM/UVM Medical Center process for review of adverse events should be included in the DSMP.
Please see my separate Data Management and Security Plan for more information.

Define criteria to be used for decision making regarding continuation, modification, or termination of the entire study (not individual participation) (i.e. “stopping rules)? Should there be any kind of concern about the security of my data, the study will be stopped to re-examine the Data Management and Security Plan and correct issues.

What will be the frequency of the review? Please note that the frequency of reviews should be commensurate with the risk of the study. At a minimum, a review of the data should be conducted annually at time of continuing review. Forward copies of the data and safety monitoring reports to the 1) IRB, 2) CRC (if applicable), and/or 3) UVMCC (if applicable).

- Monthly
- Quarterly
- Bi-annually
- Annually
- Other (e.g. by dosing level, no. of subjects enrolled):

Will the sponsor be conducting data monitoring visits for this study?

- Yes
- X No
- NA

Adverse Event, Unanticipated Problem (UAP), Reportable New Information (RNI): Describe how events and UAPs will be evaluated and reported to the IRB. All protocols should specify that, in the absence of more stringent reporting requirements, the guidelines established in the “Adverse Event and Unanticipated Problems Reporting Policy” will be followed. The UVM/UVM Medical Center process for review of adverse events and UAPs to subjects or others should be included in the DSMP.

In the absence of more stringent reporting requirements, I will follow the guidelines established in the “Adverse Event and Unanticipated Problems Reporting Policy”.

Withdrawal Procedures: Define the precise criteria for withdrawing subjects from the study. Include a description of study requirements for when a subject withdraws him or herself from the study (if applicable).

N/A: The data have already been collected.

Sources of Materials: Identify sources of research material obtained from individually identifiable human subjects in the form of specimens, records or data. Indicate whether the material or data will be obtained specifically for research purposes or whether use will be made of existing specimens, records or data.

This ex post facto, quantitative study uses secondary analysis to examine two data sources: results from the 2017 National Survey of Student Engagement (NSSE) at the University of Vermont, and GPA and demographic information obtained through the University of Vermont’s Office of Institutional Research.

Demographic and identity information such as GPA at the time of the NSSE survey, hometown zip code, college, full-time/part-time status, age at time of the NSSE survey, and major are information that are part of students’ records and are accessible by the Office of International Research (OIR). OIR has offered to merge student demographic and identity institutional data with results from the NSSE for the purpose of this dissertation. OIR will anonymize student data using unique, randomly generated numbers, and OIR will be the only place where the master key is kept.

**DRUG INFORMATION**

Investigators are encouraged to consult the UVM Medical Center Investigational Pharmacy Drug Service (847-4863) prior to finalizing study drug/substance procedures.

Drug (s)  
- X Not applicable

Drug name – generic followed by brand name and common abbreviations. Availability – Source and pharmacology; vial or product sizes and supplier. If a placebo will be used, identify its contents and source.

Human subjects protocol form 11/19/2018
<table>
<thead>
<tr>
<th>Preparation:</th>
<th>Reconstitution instructions; preparation of a sterile product, compounded dosage form; mixing guidelines, including fluid and volume required. Identify who will prepare.</th>
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<tr>
<td>Storage and stability – for both intact and mixed products.</td>
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<tr>
<td>Administration – Describe acceptable routes and methods of administration and any associated risks of administration.</td>
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<tr>
<td>Toxicity – Accurate but concise listings of major toxicities. Rare toxicities, which may be severe, should be included by indicated incidence. Also adverse interactions with other drugs used in the protocol regimen as well as specific foods should be noted. Address significant drug or drug/food interactions in the consent form as well. List all with above details.</td>
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<tr>
<td>Is it FDA approved: (include FDA IND Number)</td>
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<tr>
<td>1. in the dosage form specified? If no, provide justification for proposed use and source of the study drug in that form.</td>
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</tr>
<tr>
<td>2. for the route of administration specified? If no, provide justification for route and describe the method to accomplish.</td>
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<tr>
<td>3. for the intended action?</td>
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</table>

**SUBJECT CHARACTERISTICS, IDENTIFICATION AND RECRUITMENT**

**Subject Selection:** Provide rationale for subject selection in terms of the scientific objectives and proposed study design.

In 2017 the UVM Office of Institutional Research used email to invite all undergraduate first-year and senior UVM students to participate in the National Survey of Student Engagement (NSSE). As described on its website, the "NSSE annually collects information at hundreds of four-year colleges and universities about first-year and senior students' participation in programs and activities that institutions provide for their learning and personal development. The results provide an estimate of how undergraduates spend their time and what they gain from attending college."

Using senior students' survey results allows me to see their answer to a particular question of interest: Whether they participated in an internship during their time in college.

**Vulnerable Populations:** Explain the rationale for involvement of subjects (e.g., cognitively impaired, Non-English speaking, prisoners, students). Discuss what procedures or practices will be used in the protocol to minimize their susceptibility to undue influences and unnecessary risk (physical, psychological, etc.).

- Not applicable

The students surveyed are college students above the age of 18. The survey is not required. Participation has no bearing on students' grades or standing at the University of Vermont. Participation is completely voluntary.

**Inclusion/Exclusion Criteria:** Eligibility and ineligibility criteria should be specific. Describe how eligibility will be determined and by whom. Changes to the eligibility criteria at a later phase of the research have the potential to invalidate the research.

- All UVM first-year and senior students the age of over 18 were invited to participate.
- Inclusion of Minorities and Women: Describe efforts to include minorities and women. If either minorities or women are excluded, include a justification for the exclusion.
- All first-year and senior UVM students, including minorities and women, were invited to take this survey.
- Inclusion of Children: Describe efforts to include children. Inclusion is required unless a clear and compelling rationale shows that inclusion is inappropriate with respect to the health of the subjects or that inclusion is inappropriate for the purpose of the study. If children are included, the description of the plan should include a rationale for selecting or excluding a specific age range of children. When included, the plan must also describe the expertise of the investigative team in working with children, the appropriateness of the available facilities to accommodate children, and the inclusion of a sufficient number of children to contribute to a meaningful analysis relative to the purpose of the study. Provide target accrual for this population. Identify whether children are wards of the state. If children are excluded then provide appropriate justification.

Human subjects protocol form 11/19/2018
Given that this survey focused on first-year and senior college students, children were not a relevant audience and were not included.

For protocols including the use of an investigational drug, indicate whether women of childbearing potential have been included and, if not, include appropriate justification.

N/A

If HIV testing is included specifically for research purposes explain how the test results will be protected against unauthorized disclosure. Include if the subjects are to be informed of the test results. If yes, include the process and provision for counseling. If no, a rationale for not informing the subjects should be included.

X Not applicable

Recruitment: Describe plans for identifying and recruitment of subjects. All recruitment materials (flyers, ads, letters, etc.) need to be IRB approved prior to use.

Students were previously recruited via email, and the recruitment process was approved by the Indiana Bloomington Institutional Review Board. I do not have access to recruitment materials.

Check recruitment resources below only if applicable:

☐ Will utilize the Emergency Medicine Research Associate Program
- To utilize the students you must contact eike.blohm@uvmhealth.org to establish an agreement prior to protocol submission. Attach the required signed agreement for utilization of this program.

☐ Will utilize the SONA Psychology Pool. Include documentation indicating permission to use this recruiting tool.

FINANCIAL CONSIDERATIONS

Describe all potential research related expenses to subjects:

There are no expenses for this study.

Compensation for participation: Describe all plans to pay subjects, either in cash, a gift or gift certificate. Please note that all payments must be prorated throughout the life of the study. The IRB will not approve a study where there is only a lump sum payment at the end of the study because this can be considered coercive. The amount of payment must be justified. Clarify if subjects will be reimbursed for travel or other expenses.

X Not applicable

Collaborating Institutions

Will this research be conducted in collaboration with other sites at other locations? Yes ☐ No ☒ X

If so, complete the following for all collaborating institutions:

<table>
<thead>
<tr>
<th>Institution Name</th>
<th>Describe Involvement</th>
<th>Is there an IRB? If yes, attach approval or explanation</th>
<th>Are other permissions required? If yes, attach approval or explanation</th>
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INFORMED CONSENT

Consent Procedures: Describe the consent procedures to be followed, including the circumstances under which consent will be obtained, who will seek it, and the methods of documenting consent. Specify the form(s) that will be used e.g. consent (if multiple forms explain and place identifier on each form), assent form. These form(s) must be uploaded into the UVMClick system.

a. Type of Consent

Human subjects protocol form 11/19/2018
i. Are you obtaining Written Consent?  
Yes [X] No

If yes, will there be more than one consent document?  
Yes [X] No

If yes, how many consent documents and for what populations.
Consent was obtained by the University of Vermont when students took the NSSE in 2017.

ii. Are you requesting a Waiver of Informed Consent?
This request means that you will not be obtaining verbal nor written consent. If yes, complete the form Request for a Waiver of Informed Consent/Authorization/Documentation in UVMClick.

iii. Are you requesting an Alteration of Informed Consent Procedures?
This is a request to alter an individual’s informed consent or elements of informed consent. Deception in research would be one example when consent would be altered. See Policies and Procedures Manual for more information about when a subject’s consent may be altered. If yes, complete the smart form Request for a Waiver of Informed Consent/ Authorization/ Documentation in UVMClick.

iv. Are you requesting a Waiver of Documentation of Informed Consent?
This request means you are obtaining verbal or implied consent without obtaining the subject’s signature on a consent form. See manual for the criteria required to obtain this type of waiver.

If yes, complete the form Request for a Waiver of Informed Consent/Authorization/Documentation in UVMClick.

v. Do you intend to obtain consent from a legally authorized representative?  
Yes [X] No

vi. Are you requesting a short form consent process for non-English speaking subjects?  
Yes [X] No


b. Consent Process

i. Once a prospective subject is identified, who initiates the informed consent discussion and answers questions presented by the subject or the subject’s family?
The survey is already complete. Consent was obtained by the National Survey of Student Engagement.

ii. Where (in what setting) is the informed consent process initiated? How much time is the subject given to decide?
The survey is already complete. Consent was obtained by the National Survey of Student Engagement.

iii. Is the principal investigator present for the initial and subsequent informed consent discussions with the subject?
The survey is already complete. Consent was obtained by the National Survey of Student Engagement.

iv. What other method of documentation is used to record the informed consent process, in addition to the executed consent form? See an example of documentation of the informed consent process under consent templates on our forms page.
The survey is already complete. Consent was obtained by the National Survey of Student Engagement.

Information Withheld From Subjects: Will any information about the research purpose and design be withheld from potential or participating subjects? If so, explain and justify the non-disclosure and describe plans for post-study debriefing.

X Not applicable

Human subjects protocol form 11/19/2018
Research Data Management Plan: The Research Data Management and Security Plan form must be completed. The form, along with guidance, can be found in our forms library and must be submitted with your initial application.
Appendix B:

Research Data Management and Security Plan submitted to the Institutional
Review Board

The University of Vermont Committees on Human Research
Research Data Management and Security Plan
This form once completed and approved, will be the official data management and
security plan for the protocol. This includes biospecimens. Any changes to this plan
must be submitted for prior review and approval.

<table>
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<th>Project Title</th>
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<td>As the world interns: The impact of identity and social, economic, and cultural capital on college student internship engagement</td>
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<th>Principal Investigator</th>
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<tr>
<td>Amanda Chase</td>
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</table>

1. **Data Collection Methods** (check all that apply)

- [x] Paper and pencil (i.e. written consent forms, written questionnaires, data extracted from records onto written forms, paper source documents, etc.)
- [ ] Electronic data capture (i.e. surveys completed in redcap; electronic case report forms)
- [ ] Audio/video recordings, photographs and/or other medical images (MRI, x-rays, etc.)
- [ ] Smart device (fitbit, smart phone, applewatch, etc)
- [ ] Interactive medical or research device (i.e. pace maker, electronic pill dispenser)
- [ ] External web-based surveys

Data were previously collected in 2017 by the Office of Institutional Research using the National Survey of Student Engagement. The surveys were completed online by UVM undergraduates, either on students' smartphones, tablets, or computers. Some demographic and institutional information (GPA at the time of the NSSE survey, hometown zip code, college, full-time/part-time status, age at time of the NSSE survey, and major) are part of students' records at the University of Vermont.

2. **Plan for Protecting the Stored Data**

a. **Data Stored on Paper**

   - [ ] Not applicable

   - Data will retain direct identifiers (names, medical record number, social security number)
   - Explain why direct identifiers need to be maintained. Written consent always has direct identifiers, we are inquiring about all other research data associated with the protocol.
   - Data will be coded (A master key to the code (used to identify subjects) kept separately from the data.)
   - Describe the process used to code the data.
   - List who has access to the master key.

   - i. Describe how and where will paper forms (including consent forms) be stored (locked office, file cabinet, scanned to shared drive)?

b. **Data Stored Electronically**

   **Hospital users** should reference the Information Services Security Policy and Standards on the UVMMC site. **UVM users** should reference the Information Security Procedures policy on the UVM site.

   - i. Check which IT dept. is assisting you with the protection of your electronic research files.

   - [ ] UVMMC
   - [ ] UVM
   - [ ] UVM COM
   - [ ] Other

   - ii. How will subjects be identified within electronic research data files? (check all that apply)

   - [ ] NA
Please note that if you scan paper forms (including consent forms) these would be considered electronic research data files.

Data will retain direct identifiers (e.g. names, medical record number, social security number)

Explain why direct identifiers need to be maintained. Written consent always has direct identifiers, we are inquiring about all other research data associated with the protocol.

Data will be coded (A master key to the code (used to identify subjects) kept separately from the data.)

Describe the process used to code the data.

Before supplying it to me, UVM’s Office of Institutional Research will code data using randomly generated unique numbers, and only they will have access to the master key.

List who has access to the master key.

Megan Nyce, analyst in the UVM Office of Institutional Research

What is the physical security of the electronic research data files? (check all that apply)

a. Local computer hard drive (Will require encryption if data contains directly identifiable private information.)

Describe the plan to ensure that the computer(s) will be protected. (physical security, encryption, password protection, etc.) If you have a written SOP, you can attach or copy/paste the relevant section here.

The laptop I use requires a password to log in. I will also password protect the Excel document that contains data.

b. Institutional server

Identify which server will be used.

Server folders can be set up so that only specific personnel have access to specific folders. Describe how the folder permissions will be maintained. If you have a written SOP, you can attach or copy/paste the relevant section here.

c. Thumbdrives, External Hard Drives, Other Storage (Devices will require encryption if data contains directly identifiable private information.)

Describe the process used to ensure that other types of storage, as listed above, are properly protected. If you already have a written SOP, you can attach or copy/paste the relevant section here.

d. Collection through Online Applications or SMART Devices

If research data is being collected electronically, online, through an app, or through a smart device list name of company(ies)/host(s).

Describe how the research team receives and stores that data including how subjects are identified. (e.g. downloaded into excel with no identifiers; exported from redcap in de-identified format)

Do you have approval from the IT department that this collection method meets institutional requirements.

3. Plans for Sharing Research Data

a. Do you intend to share research data with colleagues other than key personnel or the project sponsor/funder?

Yes [ ] No, skip to 3.c.

If yes, sharing data outside of either institution whether identifiable or not, requires a data use agreement (DUA). UVM investigators should contact Sponsored Projects Administration at 656-3360 to speak with the Executive Director for Research. UVMMC investigators should contact the Office for Clinical Trials Research at 847-8990.

b. Will you include direct identifiers with the data that you will be sharing?

Yes [ ] No, skip to 3.c.

If yes, provide justification for sharing identifiers.
Describe the method you will use to share the data.

If sending files through email, explain the process you plan to use to encrypt files. (Encryption is required even if sending to and from uvmhealth.org, med.uvm. and uvm.edu email addresses.) If you have a written SOP, you can attach or copy/paste the relevant section here.

c. Are you sharing identifiable data with the protocol sponsor/funder? (signed consents are identifiable)
   - Box to select: Yes  No
   - If yes, describe how that data is shared.

4. Research Data Retention and Disposal
   a. Do you intend to retain the research data once the protocol is complete?
      - X Yes  No, proceed to 4.f.
   b. If yes, indicate reason for keeping the data.
      - X As a basis for my future work only
      - As a resource for other investigators*
      - Sponsor requirement only
      - Other
         *If the intention is to have the data be a resource for other investigators, the data should be moved into a repository where rules for future data release are in place. (This includes biospecimens)
   c. If you intend to move the data or biospecimens into a repository, list the IRB number assigned to the repository.
      - X IRB #  Not applicable
   d. Do you intend to keep identifiers of any kind, direct or coded?
      - X Yes  No
      - If yes, justify why you will need to keep the identifiers.
         If you intend to maintain identifiers, any subsequent secondary analysis after protocol closure requires prior IRB review and approval. Please acknowledge this requirement by checking below.
      - I understand subsequent data analysis requires prior IRB review and approval.
   e. Describe where the data will be physically stored long term. If you have a written SOP, you can attach or copy/paste the relevant section here.
      - Local computer hard drive
   f. Describe your data destruction plan. If you have a written SOP, you can attach or copy/paste the relevant section here.
      - After my research is complete, I will delete the data that I have used from the National Survey of Student Engagement and information obtained through the UVM Office of Institutional Research.

5. Training for the Research Team
   Describe how you will ensure that your research team members understand and will follow this data management and security plan. If you have a written SOP, you can attach or copy/paste the relevant section here.
   - I am the only member of my research team. I have undergone IRB training and will adhere to requirements regarding data management, security, and destruction.