ACADEMIC DECISION MAKING IN A LIBERAL ARTS COLLEGE SETTING

A thesis presented
by
Grace S. Cheng

to
The School of Education

In partial fulfillment of the requirements for the degree of
Doctor of Education

Dr. Chris Unger
Advisor

College of Professional Studies
Northeastern University
Boston, Massachusetts
April 2018
Abstract

This study evaluated a series of decisions made by women during young adulthood, including the choice to attend Wellesley College and how Wellesley students made academic choices during their undergraduate years. Choices such as picking a major, deciding whether to study abroad or on another campus, or pursue an internship, not only affect one’s overall college experience, but constitute a common set of decisions college students must make. Less understood are factors influencing these choices and changes, and how deliberate they are meant to be. Interests, career goals, previous educational experience, the role of advising, financial factors, familial, social, and peer pressures may all play a role in a liberal arts environment. Knowing more about motivation and decisions students make during their college years can help resource allocation and student advising on any liberal arts college campus. This study’s results revealed that generous financial aid, a powerful alumnae network, the opportunity to work closely with professors, and being around other confident and high-achieving peers all played a significant role in why students choose to attend Wellesley. The students were seen to craft productive academic experiences based on high levels of intrinsic motivation and internalized external motivation. They expected to be exposed to a wide range of coursework across the liberal arts spectrum, and though academic choices were made primarily out of personal interest, students found there were limitations on their decision-making caused by time, workload, concern over grades, and access to information. As colleges grow diverse student bodies from a variety of familial and educational backgrounds, these findings may be relevant in the continuing discourse of how to provide equal opportunities and fulfilling college experiences for all.

Keywords: liberal arts colleges, motivation, self-determination theory, college major, decision making, emerging adulthood, Wellesley College
Acknowledgments

I want to thank my husband-to-be, Mike, for his patient understanding and encouragement for me to finally finish up grade 37 and earn this doctoral degree. There are too many other people to acknowledge for their love and support and for instilling me with the desire and inspiration for lifelong learning.

I also want to thank my advisor Dr. Chris Unger for his guidance and expertise, from thesis proposal to data collection to final presentation of this study. Thanks also to my second and third readers, Dr. Carolyn Bair and Dr. Sarah Beasley, for their supportive feedback and contribution to the completion of this thesis.

Finally, I would like to thank Dean Joy St. John and Assistant Provost Pamela Taylor for allowing me access to the Wellesley College Class of 2018 and for the data and continual support of this writing adventure that they have provided. This endeavor would also not have been possible without the participation of genuinely honest, confident, inspirational, and amazing members of the Wellesley senior class who are about to join the world’s most powerful women’s network, Wellesley alumnae who are making a difference in the world.
# Table of Contents

Table of Contents ........................................................................................................... 4
List of Tables .................................................................................................................. 6
List of Figures ................................................................................................................. 7
Chapter I: Introduction ................................................................................................. 8
  Statement of the Problem ......................................................................................... 8
  Significance of the Problem ..................................................................................... 14
  Positionality Statement ......................................................................................... 15
  Research Questions ............................................................................................... 16
  Theoretical Framework ......................................................................................... 17
  Summary ................................................................................................................. 23
Chapter II: Review of the Literature .......................................................................... 25
  Review of Emerging Adulthood Literature ......................................................... 26
  Literature on College as a Life Choice ............................................................... 28
  Literature on the Choice of a College Major ..................................................... 29
  Literature on the Liberal Arts Student Experience ........................................... 31
  Literature on Occupational Status and Life Goals .......................................... 34
  Literature on Changing Selves Over Time ......................................................... 38
  Literature on Self-Efficacy and Self-Determination ......................................... 40
  Summary ................................................................................................................. 44
Chapter III: Research Design .................................................................................... 47
  Research Questions ............................................................................................... 47
  Research Design .................................................................................................... 47
  Population and Sampling ...................................................................................... 48
  Data Collection and Analysis ............................................................................... 50
  Validity and Reliability .......................................................................................... 54
  Ethical Considerations and Protection of Human Subjects ............................... 55
  Summary ................................................................................................................. 58
Chapter IV: Research Findings .................................................................................. 59
  Qualtrics Survey Participants ............................................................................... 60
List of Tables

Table 1. Qualtrics Survey Respondent Characteristics .................................................................60
Table 2. Qualtrics Survey Respondents by Ethnicity .................................................................60
Table 3. Qualtrics Survey Respondents by Highest Level of Parental Education Obtained ....61
Table 4. Additional Qualtrics Survey Respondent Characteristics .............................................61
Table 5. Considerations Affecting Choice of Major ......................................................................63
Table 6. Extent to Which Opportunities have been Explored ......................................................65
Table 7. Students’ Measures of Success in College ......................................................................66
Table 8. Students’ Background and Knowledge Base ...................................................................68
Table 9. Student Beliefs about Decision Making .........................................................................69
Table 10. Entering Student Survey Respondents by Ethnicity ....................................................70
Table 11. ESS Survey Respondents by Highest Level of Parental Education Obtained ............71
Table 12. Other ESS Survey Respondent Characteristics ..............................................................71
Table 13. Independent Variable Definitions ..................................................................................73
Table 14. Dependent Variable Definitions ....................................................................................74
Table 15. Current GPA based on Self-Reported Academic Preparedness in 2014 .....................75
Table 16. Extent of Interest in College Opportunities ....................................................................75
Table 17. Students’ Agreement of Variable Being a Measure of Success ....................................76
Table 18. Cross-tabulation of College Grades Considered as a Measure of Success from 2014 to 2018 ........................................................................................................77
Table 19. Factors not Considered as Measures of Success from 2014 to 2018 ..........................78
Table 20. Cross-tabulation of Enjoyment of Classes as a Measure of Success from 2014 to 2018 ........................................................................................................................78
Table 21. Cross-tabulation of Skills Gained for Employment as a Measure of Success from 2014 to 2018 ................................................................................................................79
Table 22. ANOVA Between-Subject Effects: Attitude Towards Grades and GPA .......................81
Table 23. Coefficients of Dependent Variable: Current GPA (2018) ...........................................83
Table 24. Participants in Focus Groups ..........................................................................................87
Table 25. Themes Emerging from Research Question 1 ...............................................................88
Table 26. Themes Emerging from Research Question 2 ...............................................................91
Table 27. Themes Emerging from Research Question 3 ...............................................................96
Table 28. Themes Emerging from Research Question 4 ..............................................................105
List of Figures

Figure 1. Self-Determination Theory (SDT) Spectrum of Motivation and Behavior.................18
Chapter I: Introduction

Statement of the Problem

Choosing a college is only the first of many decisions considered as part of a rite of passage in young adulthood. College students continue to face academic and co-curricular choices and make decisions that may periodically change before graduation. Less understood are factors influencing choices and decision changes and how deliberate any changes are meant to be. Interests, career goals, previous educational experience, financial factors, familial and societal pressures may all play a role in motivating a student, especially in a liberal arts environment.

This study will explore academic decisions that college students are expected to make during their college years and the influences that drive their motivations in trying to craft productive and fulfilling experiences during their time at Wellesley College.

Research problem. A liberal arts education, the pursuit of breadth over tracking oneself onto a vocational path, was historically seen as an option for students from elite backgrounds, free from certain practical demands of life, being groomed to master qualities needed in order to govern others (Goyette & Mullen, 2006). Harvard College pioneered the elective system in the 1860s under President Charles W. Eliot, who advocated for a wide and stimulating curriculum that would allow students to find their own interests in order to release their full potential (Hawkins, 1999). At the same time, Wellesley College touted the teaching of confidence and self-assertion in women, within a broad intellectual community that preserved Western cultural traditions (Hawkins, 1999).

The liberal arts continue to teach general intellectual skills such as critical thinking and writing in additional to being able to transmit cultural capital, or a body of knowledge that may
increase how one is regarded in society, in the form of the experience and status of having
graduated from an institution that touts a liberal arts curriculum. Previous research has found that
increased expectations over one’s own educational achievements and credentialing is correlated
with a higher likelihood that one will eventually attend graduate school, thus making it more
likely for a student to major in a liberal arts field, saving vocational training for after one’s
undergraduate years (Zhang, 2005). Students at liberal arts institutions choose their
undergraduate institution and major never intending that destination will be the final stop on their
lifetime educational journey. So how do students make academic decisions while in college and
what influences them?

Once enrolled in a liberal college setting, students should find themselves on a nearly
level playing field with the same access to resources and information around them (Xu, 2013).
The new social environment ideally offers equal access and autonomy to its students, and allows
them to form their own networks and support systems. The better an institution is able to
eradicate pre-existing differences in cultural capital between students by providing them equal
access to resources and to allow peers and faculty to interact freely to create new social
networks, the easier it may be for students to look ahead and shape their own views of their
academic and professional paths. Knowing more about student decision-making during college
can help resource allocation and student advising on any liberal arts college campus and continue
any discourse circling around the relevance of a liberal arts education.

Wellesley College admitted a record low 19% of applicants for the Class of 2022. As the
volume of applications has steadily increased each year, the growing diversity of the applicant
pool has yielded more and more interest from new geographical areas, varying socioeconomic
backgrounds, first-generation college students, and students previously unfamiliar or unwilling to consider applying to a highly selective residential liberal arts women’s college in New England.

Wellesley’s liberal arts philosophy forces students to ultimately choose majors that are generally not pre-professional in nature, and may have lower expected future earnings. Wellesley’s policy on financial aid and accessibility is also consistent with many of its highly selective liberal arts peers in offering just need-based financial aid without merit or athletic scholarships. However, no study exists on Wellesley College students that evaluates the persistence and consequences of academic decisions made during their undergraduate years. Though Wellesley is a highly selective single-sex institution, it is not unique in its mission to honor diversity and inclusion as a way of life on campus. It shares with other institutions a commitment to building a living and learning community in which students can thrive intellectually and socially, and one in which students are inspired to craft goals for a lifetime of opportunity. By observing how and why students take advantage of on-campus resources, any liberal arts college can better understand how their offerings and opportunities contribute to one’s overall student experience.

**Justification for the research problem.** The purpose of this study is to evaluate a series of decisions made by women during young adulthood, including the choice to attend Wellesley College and how Wellesley students have made academic and co-curricular choices during their undergraduate years. Choices such as picking a major, deciding whether to study abroad, pursue an internship, or participate in a club, not only affect one’s overall college experience, but constitute a common set of decisions all college students must make. Though these choices may periodically change before graduation, students are forced to make decisions that affect a path to graduation and beyond. Are students strategic, practical, and deliberate about these choices?
Less understood are factors influencing these choices and changes, and how deliberate they are meant to be. Interests, career goals, previous educational experience, the role of advising, financial factors, familial, social, and peer pressures may all play a role in a liberal arts environment. Knowing how college students make decisions can assist college administrators with setting policies and timelines, as well as allocate scarce resources such as financial aid, faculty and staff coverage, and the administration of special programming.

Not much is understood if academic and co-curricular choices, such as choosing a college major and choosing certain courses, may be affected by a range of factors, including, but not limited to, the family background, parental influence, perceptions of a first generation college student, perceived gender roles, prior expertise in a certain academic subject matter, prestige, potential future career opportunities, financial ramifications, and personal satisfaction in studying a certain field.

Less research has focused on smaller private liberal arts colleges, which operate with large endowments for undergraduate need-based aid and do not offer merit or athletic scholarships. At such institutions, students do not need to worry about tuition and fees differing for residents and non-residents, nor do they have to be concerned with majors requiring different costs or graduation requirements that would change the timeline until graduation. However, they have to make academic and co-curricular choices that are predominantly not pre-professional in nature and have varying degrees of perceived lucratively in the future.

This study has as a limitation a very small sample in relation to the entire American higher education system. However, understanding how students are motivated to make and settle on academic and co-curricular choices during college could help all liberal arts colleges know
how to better allocate scarce resources, across academic departments, or into a more robust financial aid program.

In the greater higher education landscape, liberal arts schools offer a small number of very broad and interdisciplinary choices of major that assume they will all provide an equal amount of cultural capital to students after graduation so that there should ideally be no hierarchy of majors, and each will equally prepare students for graduate school or the work force. In trying to understand why students make certain choices and changes over the course of four years instead of just focusing on outcomes, prospective students and parents would benefit from qualitative evidence demonstrating the value of a liberal arts education.

Admissions offices would be helped in recruiting students who once perceived their institutions as impractical and inaccessible because of perceived net cost, or the lack of money-earning potential of some academic departments. Advising and career services offices would benefit from knowing the extent to which students change their declared concentrations and how they perceive future opportunities post-graduation. Lastly, by examining any link between the amount of need-based financial aid awarded and the ultimate choice of college major, financial aid offices can justify the continued use of grants in enhancing the undergraduate experience at highly selective liberal arts schools. Need-based grants can better be understood as a way to further open opportunities to students who possibly would have never considered liberal arts majors. It would be helpful to note if financial initiatives are actually steering students on need-based aid into certain concentrations.

**Deficiencies in the evidence.** It has been noted that much of the research on emerging adulthood has focused on the American majority population, largely Caucasian and middle-class, and responsible for holding power across political, intellectual, and economic lines in the United
States before the turn of the 21st century (Arnett, 1998). It is clear that not just one event in one’s life, such as choosing to attend college, is the indicator of becoming an official adult, and much more research that is inclusive and updated for the changing demographics of the 21st century is necessary to make further generalizations about the transition from adolescence to adulthood.

Though studies have mainly focused on samples of students and workers just in the United States, a study of Pakistani university graduates and their development of self-efficacy revealed that a sample of students and employers were not satisfied in terms of the social and personal development of local students as they readied themselves for the Pakistani work force (Raza, Hashmi, Zeeshan, Shaikh, & Naqvi, 2011). This study expressed great concern over the social development of university graduates and their preparedness for the global work force. Though intellectual capital, or the overall value of one’s gains in knowledge, was shown to be strong, the study revealed perceived weaknesses through the students’ lack of exposure to adaptability and flexibility, and overall weak social interactions between and amongst faculty and peers. No significant differences were found across varying genders, industries, or educational credentials. These results open great opportunities to explore motivation and life choices across country and cultural lines. There may be cultural, religious, and ethnic differences in the attitudes towards life meaning and purpose, in addition to practical life needs faced by individuals in different socioeconomic brackets. The study of different demographic groups even just in the United States will most certainly contribute to existing literature already exploring differences in life span development.

Lastly, it is also important to consider the subtle difference between ability and accomplishment, each of which may be situationally specific and much more broadly defined than just by academic subject knowledge (Baird, 1985). Regardless of the level of education
attained, many criteria of success, such as income and credentialing, could be ambiguous, arbitrary, dependent on luck, or manipulatable through an inordinate amount of external preparation and assistance. In fact, Holland, Astin, and Kuhlen (1962) found no correlation between one’s high school transcript and the creative and social accomplishments achieved during college. Instead, it was found that past accomplishments were far better at predicting future accomplishments in areas such as writing, science, art, music, public affairs, and leadership, rather than measures of ability or personality (Baird, 1985). This can further cloud one’s definition of self and identity, and one’s ability to answer the question, “Who are you?” when asked at different points in her lifetime.

Questions abound especially for prospective liberal arts students and liberal arts graduates who are faced with myriad choices before, during, and after college. Many of these choices involve assessing one’s self as one goes through a journey of personal, educational, and professional growth while faced with academic choices during one’s time in college. Literature explored in this study will identify what is known to affect one’s life choices and motivations, especially during emerging adulthood.

**Significance of the Problem**

Understanding academic decision making during one’s years at a liberal arts college will help college administrators set policies and timelines to foster productive and fulfilling college experiences. This should also allow for thoughtful allocation of scarce resources, including financial aid, and faculty and staff coverage.

Students’ personal interests have been found to play a pivotal role in their motivation to acquire knowledge (DeMarie and Aloise-Young, 2003). Interest in particular subject areas was found to even top the desire to find a career in a particular area, and students who took courses
related to a preliminary choice of major were more likely to have personal interest in those courses over core curriculum courses.

If attending a highly selective liberal arts college such as Wellesley College will allow a student to gain cultural capital which will contribute to one’s future social status, is it true that one should not have to think about academic and co-curricular choices in a strategic, forward-looking manner?

**Positionality Statement**

As the Director of Admission at Wellesley College and a strong advocate for undergraduate liberal arts education, the researcher has a clear bias against the association of some fields of study as being more able to lead students into a practical career over others. From speaking to thousands of prospective students each year in their high schools, at college fairs, and when they visit campus, it is clear that students’ preliminary ideas as to what they would like to study are affected by family background, parental influence, perceived gender roles, prior educational expertise, prestige, potential future career opportunities, or simply personal satisfaction, among other subjective factors faced by 17 and 18-year-olds (Galotti, 1999). On the admissions application, a student can also choose to reveal the occupation and educational background of her parents, giving the Board of Admission insight into whether the student may be among the first generation in her family to attend college. Students may also reveal their preference towards specific academic fields based on their chosen extracurricular activities.

The researcher’s assumptions come from her personal background of having fallen into the “practical major” trap herself thinking that she needed to study a field and choose courses and extracurricular activities that sounded relevant enough to please her parents and any future employer. The researcher felt compelled not to change majors because she faced heavy student
debt upon graduation. Had she applied for, and received need-based financial aid, the researcher may not have felt as compelled to have majored in a field that led directly to a corporate job starting four days after commencement. The researcher’s background in the liberal arts ultimately provided the skills and confidence to switch careers later in life.

Though a liberal arts education is predominantly an American concept, any bias towards eliminating all practicality in a student’s search for major could be problematic for students who are not US citizens who need to return to their home country to work, according to Nores (2010). Regardless of their ability to pay for college and of their desire to attend a liberal arts institution for an undergraduate education, there may always be a compelling reason for why one must lean towards a particular field of study. Second, the researcher also cannot assume that all humanities and social science majors are either too wealthy to file for financial aid, or are on enough financial aid that they are not concerned about future career and earnings potential. In the same vain, the researcher cannot assume that students majoring in STEM fields are just chasing money and prestigious jobs upon graduation.

**Research Questions**

The following three research questions will guide this mixed methods study:

1. Why do students choose to attend Wellesley College?

2. How do Wellesley students make the academic and co-curricular choices they do during their four years at this particular liberal arts college?

3. What factors impact a Wellesley student’s decision in making academic and co-curricular choices during the four years of her college experience?

4. Are there trends among students with similar backgrounds?
Theoretical Framework

One’s motivation comes from a combination of internal and external factors that drives how and why one makes choices (Baxter Magolda, 2007; Brooks & Young, 2011; Ryan & Deci, 2000). As this study examines choices Wellesley College students have made that have affected their academic experiences, Self-Determination Theory (SDT) will provide the framework through which the research questions will be explored and examined, assessing the degree to which motivation is a key driver of one’s choices and work ethic, and can reinforce or discourage attitudes and behaviors that contribute to one’s college experience.

**Rationale for selecting theoretical framework.** Ryan and Deci (2000) define Self-Determination Theory through the multidimensional consideration of how one approaches the making and achievement of goals, recognizing that actions can be influenced by certain pressures, incentives, and varying degrees of personal intent. It is a theory of human motivation and choice making, acknowledging that individuals have inherent tendencies of wanting to learn and satisfy three particular innate psychological needs – competence, autonomy, and relatedness - through their actions. SDT also examines the degree to which an individual’s behavior is made alone and without the influence of external factors. Intrinsic motivation describes this tendency to make decisions out of one’s sheer desire to learn and explore, followed by actions based on these decisions that are fully self-determined. Behaviors based on intrinsic motivation expect no reward other than the self-satisfaction derived from doing them.

On the other hand, extrinsic motivation describes the tendency to make decisions based on the influence by external factors, and which may expect a reward or outcome aside from self-satisfaction. Thus, motivation linked to behaviors can be defined along a spectrum from fully non-self-determined to fully self-determined behavior. Additionally, factors such as an
individual’s level of interest, curiosity, initiative, and self-regulation under autonomous conditions, can also be scrutinized in determining how motivation leads to certain choices during one’s undergraduate college years (Durmaz & Akkus, 2016). Self-Determination Theory is a strong fit to examine the research questions encompassing this study, as it delves into many possible motivating factors behind why college students make the choices they do.

The structure of the framework along a continuum. Self-Determination Theory is based on the distinction between motivation, or having the willingness to act, and amotivation, the unwillingness to act or acting without intent or acknowledgment of any value in one’s actions (Ryan & Deci, 2000). The theory then distinguishes between extrinsic motivation from intrinsic motivation. Motivation can then be linked to regulations and behaviors that can be defined along a spectrum from fully non-self-determined (controlled by others) to fully self-determined behavior. Figure 1 below depicts the spectrum that defines this theory.

![Figure 1. Self-Determination Theory (SDT) Spectrum of Motivation and Behavior (Agawa & Takeuchi, 2016; Ryan & Deci, 2000).](image)

Extrinsic motivation. External pressures and influences that affect how and why one makes decisions and sets goals, and the desire to earn a specific incentive or externally validated
outcome drive the forces behind extrinsic motivation. Ryan and Deci (2000) found that it is usually a reward or fear of punishment that drives one into action. These actions characteristically are more likely to be pursued for the explicit goal of simply getting tasks done to achieve an outcome, such as working in an unfulfilling job for a paycheck, rather than pursuing activities that are inherently satisfying if not joyful in doing purely as an activity.

Guiffrida, Lynch, Wall, and Abel (2013) assert that extrinsic motivation encompasses the influence of external incentives or disincentives and is less conducive to the process of learning than motivation that is generated internally. For example, choosing a major that may be less interesting but based on a perception that it will lead to a more lucrative job after college may cause a student to be less engaged and enthusiastic about the subject matter than if she studied a field in which she were more interested without worrying about just her future salary. However, extrinsic motivation may have a significant impact on college students’ choices in classes they take, activities they engage in, and concentrations they pursue. In a residential college setting for example, one’s social environment, family background, and cultural upbringing may all contribute to the pressures placed on one’s ability and desire to make certain decisions. Choices affecting one’s academic experience may also be made in the context of requirements and demands placed on each student in order to graduate, though it is hoped that students who choose a particular college setting and experience have some understanding of its expectations and where the boundaries of true autonomy lie in her decision making.

According to Self-Determination Theory, how a student internalizes the value of particular choices and its outcomes will vary along a continuum of personal intention and autonomy shown in Figure 1, which identifies a range of reasons behind why externally motivated actions are performed (Ryan & Deci, 2000). Note that Figure 1 omits amotivation, the
lack of any intention or value in a choice to act, as this study assumes that college students chose to attend college for a reason and have an opinion as to why they chose to attend a particular institution.

Organismic integration theory (OIT), a subtheory of SDT, details four different forms of extrinsic motivation and the regulation of behaviors based on their level of autonomy (Ryan & Deci, 2000). The least autonomous behaviors, those that are most reliant on a reward or forced by uncontrollable demand, constitute those under external regulation. An example would be a student whose only reason to go to college is to receive a diploma. Next along the spectrum is introjected regulation, which recognizes external influence that triggers some form of response related to self-esteem, typically ego or guilt. Though choices are made with the self in mind, the cause of the behavior is primarily external and not very autonomous, making each action one that defines or enhances one’s self-worth. An example would be a student who only runs for student government because she knows she will win the popularity vote. A third type of extrinsic motivation is identified regulation, which credits leeway for more self-determined behavior, based on the value the actor has placed on said behavior. A student who eats vegetables knowing they are good for her demonstrates identified regulation. At this point along the behavior continuum, an individual has realized the learning value of a particular choice and behavior. Lastly, the most autonomous behaviors stemming from external influence make up those under integrated regulation. Such integration recognizes internalization and alignment of external influences to one’s own value structure so that extrinsically motivated choices may be fulfilling one’s actual needs while still having the possibility of earning some reward or incentive. A pianist who defines her whole existence by playing the piano, and potentially winning contests and gaining recognition, demonstrates integrated regulation.
The extent to which choices spurred on by outside influences are made willingly and become increasingly valued will vary among individuals, and full integration and internalization of values among adolescents is indeed rare (Niemiec, Lynch, Vansteenkiste, Bernstein, Deci, & Ryan, 2006). This study will seek to identify how external coercion and pressure may be social or cultural in nature, and how students respond to these factors in a college setting, which could then possibly inform how colleges and universities can leverage institutional and peer-related variables to foster student motivation and understand better the nature and driving forces of such motivation. Colleges can encourage more self-determined behaviors along the entire spectrum in their preparation for students to enter the real world.

**Intrinsic motivation.** Self-Determination Theory is also grounded in the belief that intrinsic motivation more directly affects one’s desire to learn, and is fostered from the need for individuals to feel autonomous, competent, and related to others (Guiffrida et al., 2013). Autonomy, competence, and relatedness are regarded as innate psychological needs that students seek to fulfill as they make academic choices and engage in related activities that interest them. Autonomy is a necessary human need that facilitates fully integrated and internalized regulation by allowing individuals opportunities to direct their own choices, explore their curiosities, and demand challenges (Ryan and Deci, 2000). Competence, and its related needs of acknowledgment and feedback, also contributes to intrinsic motivation especially when accomplished by autonomy. College students are more likely to internalize goals if they have the confidence in knowing they will be able to successfully achieve them (Ryan and Deci, 2000). Finally, relatedness encompasses feelings of belonging and identification with others, such as their college peers, during this time period of emerging adulthood. Feelings of relatedness can also include respect accorded by others – faculty, parents, and others.
Feeling close to other individuals fosters an emotional need that allows individuals to feel most fulfilled in life, according to Maslow’s Hierarchy of Needs and the concept of self-actualization (Petty, 2014). Seeing goals reached can further promote intrinsic motivation and fulfill their social and self-esteem needs especially when they feel connected to, and integrated within the college community. Guiffida et al. (2013) conclude that students who don’t have a strong sense of wanting to connect with faculty, advisors, and peers, through the taking advantage of support structures and resources available on a college campus have low intrinsic motivation and are more likely to be apathetic about their academic choices and fall through the cracks of academic success. This has great implications for a college in guiding students towards balance, engagement, and productive decision making, and how any residential college environment can foster one’s inherent love of learning by supporting autonomy and relatedness.

It has been found that college students with high levels of intrinsic motivation, not general intelligence, are more likely to persist, achieve greater academic success, and graduate from college than their amotivated and more extrinsically motivated peers (Goldman, Goodboy, & Weber, 2017). Thus, it benefits colleges and universities to understand conditions that will be able to continually foster such intrinsic motivation, and which identifying other factors that may moderate it.

Intrinsic motivation has also been found to be a key driver of creativity and fulfillment because an individual is behaving in ways that feed a natural sense of interest, joy of learning, and self-recognition of potential (Ryan and Deci, 2000). SDT assumes that individuals are naturally seeking ways to continually self-improve, thus there is less chance of resentment or apathy when one’s choices of activity are driven by their particular inherent interests. Even without any expectation of reward or external incentive, intrinsic motivation contributes to a
sense of will and commitment to learning and becoming competent in an endeavor, task, or domain of work.

The framework’s fit with the study. A residential college such as Wellesley, whose mission is “to educate young women who will make a difference in the world,” may prove to be an ideal college where students make academic choices based on a high level of intrinsic motivation fostered by the three psychological needs of autonomy, competence, and relatedness being easily fulfilled while on campus. Self-Determination Theory posits that individuals will internalize external influences, thus the effect of extrinsic motivation on one’s choices and actions may still depend on how an individual regards how well their needs for autonomy, competence, and relatedness are met, with or without the possibility of external reward. When choices are made with external validation in mind, does the value of an activity increase or decrease? Does an emphasis on outcome expectations undermine one’s innate intrinsic motivation?

In an all-women’s residential liberal arts college environment such as that at Wellesley College, the extent to which parental pressures, family background, job anxieties, and gender stereotypes affect pre-existing motivational factors and behaviors will also be explored in this study. Existing research has not explored motivation behind choosing to attend college in the first place, nor will that be examined in this study.

Summary

Exploring the many decisions that Wellesley college students are expected to make during their undergraduate years and all the influences that drive students in trying to craft productive and fulfilling experiences may help researchers understand why students make certain choices and changes over the course of four years in a liberal arts environment. Literature
explored in this study identifies what is known to affect one’s life choices and motivations, especially during and just after emerging adulthood. There is no doubt that motivation is a key driver in the academic decision-making and related success of college students. Research on the self-determination of college students should provide a wealth of guidance for college administrators charged with enhancing the student environment in residence halls and classrooms, and enhancing advising opportunities for academic, social, and mental health advising.
Chapter II: Review of the Literature

For many college-bound students in their last year of high school, the college application is the first time they are asked to articulate what defines them. Life-stage theorist Erikson (2000) suggests that when faced with this self-assessment task of defining who they are, all individuals encounter a crisis of “identity confusion”, a syndrome of uncertainty involving one’s assessment of her own place and vocation at that point in time. It is a dilemma of choices that is most pronounced during a time period between late adolescence and adulthood that Arnett (1998) refers to as “emerging adulthood.” This is a distinct period of exploration, which corresponds to one’s undergraduate college years for those who choose to go to college after high school. This is a time during which individuals may experience tremendous exposure to educational, work, and social opportunities and choices specifically made available for that age demographic. This has great social significance in the transitioning and transforming of high school students through their college years leading them into adulthood.

Literature explored in this review identifies a wide range of considerations known to affect life and academic choices that individuals make during a point in their lives between the time they leave high school through their college years, should one choose to attend college. A consideration to take into account is chronological age, but also the exposure to a residential college experience away from home and subsequently, the newfound independence associated with the anticipation of entering the adult working world. Patterns of choices may vary with the socioeconomic, cultural, or ethnic background of individuals, but existing literature has primarily focused on predominantly Caucasian middle-to-upper-class America.

This literature review first explores existing research on the transition from adolescence to adulthood and the broad evolution of motivations behind academic, social and occupational
goals during this time period, and then will suggest possibilities where further research can focus.

**Review of Emerging Adulthood Literature**

Adolescence, defined as the time period between adulthood and childhood, was institutionalized when mass schooling was implemented to cover gaps in socialization and vocational skill sets as urbanization and industrialization was sweeping through the 19th century (Chisholm & Hurrelmann, 1995). Adolescence, as a distinct life phase, has traditionally been defined by specific milestones and life events affecting one’s educational, work, health, and love status that have all been socially institutionalized over time. This includes events such as graduating from middle school to high school, being licensed to drive a car, making post-secondary plans for after one’s high school graduation, and entering the work force for the first time. Existing research on identity asserts that individuals coming out of high school rarely have achieved complete identity formation. Instead, identity formation happens over what is becoming a prolonged period of time especially in industrialized societies (Erikson, 2000; Waterman & Scarr, 1982; Whitbourne & Tesch, 1985). It is precisely this increased time and space during which norms and values have come to be for this group of young people that has justified the characterizing of a new life phase known as emerging adulthood. The more financially stable a family is may also extend this life stage allowing a teenager more freedom of time and choice. Thus, this period of time is characterized by extensive self-exploration.

During emerging adulthood, the majority of individuals preparing for the work force will have obtained enough education and training to support the rest of their occupational lives (Chisholm & Hurrelmann, 1995). The choice to continue to college after high school supports the direct link many see between educational opportunities and employment viability. Education
and work thus form a symbiotic relationship that helps feed secondary school and college graduates into entry-level positions. Young adults have the opportunity to openly consider how their educational and work experiences will prepare them for future possibilities, and this is evidenced in college students changing their minds over their college majors, or in their pursuit of a wide variety of jobs especially in their first few years out of college. Furthermore, based the popularity of graduate education as a choice after undergraduate work is completed allowing for further changes in one’s initial educational and occupational path, Arnett (1998) found that life exploration can take place throughout one’s twenties. As educational and credentialing expectations increase based on the connection to possibly leading to better employment opportunities, individual demand for the highest level of educational attainment possible has increased. However, it is no secret that increased options for tertiary degrees may lead to the dilution of credentials once highly valued before. This may well contribute to the diminished predictive power of one’s degree correlating to a future career or occupation and the clout associated with a particular institution’s name brand (Chisholm & Hurrelmann, 1995). Additional research should parse the validity of credentialing and the influence of institutional reputation beyond what is found in this study.

Roberts, Caspi and Moffitt (2003) also found that during emerging adulthood, individuals are more likely to become increasingly emotionally stable and more socially well-adjusted based on increased involvement in the social structure they begin to experience on a college campus or in a workplace environment. Several studies have also confirmed that in both males and females, having more autonomy and being asked to take on increased responsibility increased one’s task significance, confidence, and emotional stability (Mortimer & Lorence, 1979; Clausen & Gilens, 1990). These findings suggest further inquiry into the development of emotional intelligence
alongside academic intelligence during emerging adulthood could yield insight on how this simultaneous development continues into adulthood, or how and when it diverges.

**Literature on College as a Life Choice**

According to the National Center for Education Statistics, there are more than 4,700 colleges and universities in the United States, of which over 3,000 are four-year degree-granting institutions. The roots of this expansion of college options are congruent with the beginnings of significant government investment in infrastructure following World War I. Increased demands from the job market started to place increased value on a college degree, thus postsecondary education after high school became increasingly considered as an option by people who saw higher education as a path to upward mobility (Baum, Kurose, & McPherson, 2013).

Stephenson, Heckert, and Yerger (2016) found that the most commonly cited reasons a student was attracted to attending a particular college was the availability of majors, followed by price, a positive college visit, location, and the perception of others towards that particular institution. This was found to be consistent with research that shows prospective college students make decisions like rational consumers of products, in their decision to enroll in college and into which one (Stephenson et al., 2016). In particular, liberal arts colleges boast residential environments that emphasize teaching and learning across a wide range of majors, and foster a great sense of campus community even with increasingly diverse student bodies (Lang, 1999).

One-third of young adults choose to go to college after high school and experience both independent living and the continued need to rely on adult providers for money, food, shelter, and in loco parentis oversight (Arnett, 1998). Significant research has been done on the young adult population during this time in college (Hill, Burrow, Brandenberger, Lapsley, & Quaranto, 2010; Astin, Nichols, & Clark, 1964). These young adults do not see themselves as adolescents,
yet also do not consider themselves as adults because they have not reached or obtained what is considered a settled income, educational level, career, or marital status (Arnett, 1998).

Arnett (1998) attests that the change in residential status of individuals during and just beyond emerging adulthood contributes significantly to an exploratory quality of this time period. Leaving home has traditionally been a sign of emerging from adolescence, and young Americans do so by the age of 18 or 19 (Goldscheider & Goldscheider, 1994). One-third of those who graduate from a four-year college go on to pursue graduate study immediately (Mogelonsky, 1996). What continues to bind this age group together is the instability of their living situations, coupled with exposure to possibly a significant degree of demographic diversity never previously encountered. Rindfuss’ (1991) assessment of this life stage as “demographically dense” is indeed quite accurate, highlighting the significant rapid changes imposed on and initiated by young adults during this time in their lives (Goldscheider & Goldscheider, 1994). This density is even more extreme when these young adults live through major events of social change during which they contribute to the engine power of such movements through increased education, activism, physical geographic movement, buying power, and employment in new occupations perhaps never having existed before.

**Literature on the Choice of a College Major**

An abundance of research on students’ choices of college majors has already been conducted at large public research universities, including many land-grant institutions that offer a wide range of academic options, ranging from ones in vocational studies to those in the humanities and social sciences. Many have concluded that choices in one’s course of study at a large public research university are directly related to one’s initial career choices (Leppel, Williams & Waldauer, 2001; Dawson-Threat & Huba, 1996; Dickson, 2010; Pascarella &
Terenzini, 2005). By first understanding student decision making in regards to the choice of a college major regardless of undergraduate institution, administrators and faculty may be better equipped to advise, guide and mentor students according to individual educational needs. Leppel et al. (2001) further contend that knowing the determinants of a student’s choice of major has large implications at the federal and state level when it comes to resource allocation in higher education, including knowing how best to use faculty, facilities, and funds effectively.

Leppel et al. (2001) also cite a study at a large Midwestern land-grant university which concluded that by requiring students to choose a major, colleges help students develop a sense of purpose in life. The study claims that a “choice of a preferred field of study at the beginning of college tends to be the single best predictor not only of career choice at the end of college but also of the career or occupation actually entered” (Dawson-Threat & Huba, 1996, p. 297). However, less has been explored at smaller liberal arts institutions where broader, interdisciplinary educational choices and their effect on career decisions may be less obvious.

Though college students do not view themselves as either adolescents or adults, Arnett (1998) found that individuals looking towards adulthood characterized “accepting responsibility for one’s self” and “making independent decisions” as the top two criteria seen as indicative of a complete transition to adulthood, ahead of any demographic indicators such as age and physical changes. This is significant as research behind the appeal of a liberal arts education finds that values of obtaining breadth of knowledge strengthens a student’s character and helps to develop personal qualities such as judgment, reason, and a sense of giving back to society (Goyette & Mullen, 2006). Though vocational majors still account for the majority of all four-year undergraduate degrees awarded each year, little research exists on why students major in the liberal arts versus vocational fields (Goyette & Mullen, 2006). Extensive work has focused on
economic returns on investment associated with particular fields of study but less is known about personal returns and their transformational effect on one’s purpose in life. Some even argue that students are unsure of their values, opinions, and abilities, thus making the scrutiny of their responses, attitudes, and life choices during emerging adulthood difficult, considering they could be responses to social pressures and not reflective of their true feelings and thoughts (Cross & Markus, 1991).

**Literature on the Liberal Arts Student Experience**

Students at residential liberal arts colleges are more likely to be satisfied with the faculty and quality of teaching, and tend to perceive the institution to be more student-oriented than their peers at non-liberal arts colleges (Astin, 1999). Astin (1999) found that selective liberal arts colleges are different from even other liberal arts colleges because of the educational practices put in place, such as frequent interaction with professors, frequent involvement of students in research, strong emphasis on diversity, frequent use of interdisciplinary teaching, and frequent use of writing-intensive classes. The peer group at such institutions is expected to be academically well prepared and interested in a wide range of fields of study, making it easier to employ some of these practices.

Allen and Robbins (2010) focus on a college student’s level of interest in a particular academic subject, asserting that they are more likely to succeed when interest in their choice of major is high. Known as interest-major congruence, when personal interest in an academic field is high, cumulative GPA and retention rate at the junior year of college is also correspondingly high. In a separate finding, the likelihood of changing majors during college was negatively correlated with high interest-major congruence, leading to a higher probability of students graduating on time and with great satisfaction in their initial chosen field of study (Allen &
Robbins, 2010). Though first-year academic performance was also positively correlated with a student’s ability to graduate on time, Allen and Robbins (2010) did not find any correlation between interest-major congruence and its effect on first year academic performance. This indirectly provides support of the liberal arts philosophy of exploration especially during the first year of college, and delaying commitment to a major until later in one’s undergraduate career.

DeMarie and Aloise-Young (2003) also contend that students’ personal interest plays a pivotal role in their motivation to acquire knowledge. The focus is on students at a small liberal arts school who are not required to declare a major until the end of their second year but have made a preliminary self-reported declaration of a major as a sign of personal interest. Interest in a particular subject area was found to even top the desire to find a career in a particular area. First-year students who took courses related to their preliminary choice of major were more likely to have personal interest in those courses over core curriculum courses, leaving the implication for general education faculty who teach courses outside particular majors to have to work harder to engage students.

Looking at students at two other liberal arts institutions which do not require students to officially declare a major until sophomore year, Galotti (1999) assures educators and students that it is not unusual for students to encounter stress and uncertainty when making the choice of a college major, and it is perfectly normal for a student to change one’s mind. However, the study looks beyond interest-major congruence to focus on the strength of a student’s decision-making skills in choosing a college major. College advisors are cautioned to look out for students whose natural tendency is to narrow choices too fast, and to be reassured that indecisive “waffling” is not always an ineffective form of decision-making.
What is known is that a liberal arts education, the pursuit of breadth over tracking oneself onto a vocational path, was historically seen as an option for students from elite backgrounds, free from certain practical demands of life, being groomed to master qualities needed in order to govern others (Goyette & Mullen, 2006). Harvard College pioneered the elective system under President Charles W. Eliot in the 1860s, who advocated for a wide and stimulating curriculum that would allow students to find their own interests in order to release their full potential (Hawkins, 1999). At the same time, Wellesley College and Smith College both touted the teaching of confidence and self-assertion in women, within a broad intellectual community that preserved Western cultural traditions (Hawkins, 1999).

The liberal arts continue to teach general intellectual skills such as critical thinking and writing in addition to being able to transmit cultural capital in the form of the experience and status of having graduated from a selective institution. Interestingly, Goyette and Mullen (2006) also found that students who valued leisure time were more likely to choose a major in the arts and sciences over a vocational field. On the contrary, students who valued a high income and job security and stability were more likely not to major in the liberal arts.

Previous research has found that increased expectations over one’s own educational achievements and credentialing is correlated with a higher likelihood that one will eventually attend graduate school, thus making it more likely for a student to major in a liberal arts field, saving vocational training for after one’s undergraduate years (Zhang, 2005). They choose their undergraduate institution and major never intending that destination will be the final stop on their lifetime educational journey. Zhang (2005) also found that matriculating at a more selective undergraduate institution increased the chance that a student would enter a graduate program within five years of graduation. In addition, students who study the liberal arts are most likely to
attend graduate school, regardless of major, or if the undergraduate institution is a public or private institution (Eide & Waehrer, 1998; Zhang, 2005).

Once enrolled in a college setting, students find themselves on a nearly level playing field with the same access to resources and information around them (Xu, 2013). The new social environment offers equal access and autonomy to its students, and allows them to form their own networks and support systems (Xu, 2013). The better an institution is able to understand and eradicate pre-existing differences in cultural capital between students by providing them equal access to resources and to allow peers and faculty to interact freely to create new social networks, the easier it may be for students to look ahead and shape their own views of their academic and professional paths.

**Literature on Occupational Status and Life Goals**

Ultimately, a practical goal is to align one’s investment in tertiary education with being desirable in the labor market. Robst (2007) found that where the quality, type, and extent of one’s educational background does not result in an ideal job match, there are economic and human capital implications for such mismatch. At the time students file their college applications, they may be asked about their preliminary choice of major and how committed they are to studying a certain field. It has been found that factors which have influenced college students’ choices of major include, but are not limited to, personal interest, gender, race, identity, ability, motivation, parental occupation, financial aid, perceived future financial payoff, and even citizenship (Allen & Robbins, 2010; Dawson-Threat & Huba, 1996; DeMarie & Aloise-Young, 2003; Nores, 2010; St. John, Chung, & Wilds, 2004; Stater, 2011; Trusty, Robinson, Plata & Ng, 2000; Ware, Steckler & Leserman, 1985). However, choices of major by peers and the demographic makeup of academic departments do not appear to be of influence (Canes & Rosen,
Many studies have also examined influential factors and correlated them as individual independent variables on student preferences, but less has been explored on students who lean towards the humanities or social science fields of study (Strenta, Elliott, Adair, Matier & Scott, 1994; Ware, Steckler & Leserman, 1985; Zhang, 2011).

Roksa and Levey (2010) argue that many credentials, including undergraduate degrees in the liberal arts, have no matches in the job market. Though many have sought to explain why students pick certain majors in college, not much has been researched about the possible mismatch between a college major and future occupation, which may result in being overeducated, underpaid, and more inclined to see frequent job turnover and less job satisfaction. Xu (2013) corroborates this by finding individuals who have a job closely related to their college major earned more money and experienced greater job satisfaction, especially those who majored in fields related to science and mathematics and then found jobs in these STEM areas.

However, Roksa and Levey (2010) also found that over time, individuals who majored in more narrow fields of study experienced slower growth in occupational status and earnings than their counterparts who studied fields with less occupational specificity. Instead, liberal arts students who experienced coursework in general education saw the fastest growth in occupational status over time, were more likely to return to graduate school to further their educational background, and then return to the work force with an even heightened occupational status.

A greater mismatch between educational and occupational status thus results in less correlation with the life goals anticipated for oneself, which may create the need to readjust and reorient one’s purpose in life. Research has yet to define a specific theory that best explains educational mismatch, but Robst (2007) asserts that human capital theory explains the existence
of overeducation, where human capital is not utilized on the job in full capacity. Conversely, undereducation involves the need for more education to provide forms of human capital in order to perform one’s job, such as training and experiential learning opportunities. Overeducation may also be looked at as a short-term investment in future job prospects to advance up or move to other jobs that will use more of their skills.

When students are asked to pick a college major, they are investing in a set of skills, some more transferable to a multitude of jobs than others. Human capital theorists also believe a positive relationship exists between one’s total educational investment and employment returns, both economically and socially, with the undergraduate institution from which a degree is conveyed serving as a proxy measure for social capital (Xu, 2013). Dolton and Kidd (1998) found that the more general the skills one possessed led to an increased likelihood of changing jobs, and Robst (2007) corroborated this notion by finding that liberal arts majors have the highest rates of educational mismatch, yet experience the least amount of wage effect for working outside their field of study. Xu (2013) found that regardless of major, both monetary and non-monetary benefits played a role in the choice of jobs made by college graduates.

Equating purpose with a charted course for life, researchers have attempted to evaluate outcomes of goal-setting for individuals even one decade after one’s graduation from college (Cross & Markus, 1991; Hill et al, 2010; Schoon, Martin, & Ross, 2007). Not only did these studies seek to measure the extent to which one feels purpose, they helped to fill a gap in literature in scrutinizing actual factors that contribute to one’s sense of purpose in life. Cross and Markus (1991) concluded that individuals in their 30s have a difficult task in reconciling their personal identities with increased independence. A generation of individuals who were children in the 1960s would have been part of a generation that sought to be “good to oneself”; thus it was
not surprising to see them have many goals for personal satisfaction and opportunities for leisure when surveyed as 30-something individuals (Cross & Markus, 1991).

Schoon et al. (2007) added that adult occupational status was affected by personal aspirations and academic attainment, confirming that job aspirations recorded as a teenager affected their adult choices. High academic performers coming out of high school in the UK were more likely to delay parenthood and pursue job opportunities within a life planning framework that developed over time, linking personal, educational, and vocational goals together. Schoon et al.’s (2007) study took two cohorts of individuals surveyed at the age of 16, 30 and 33. For a cohort born in 1958, job aspirations played a larger role on occupational status than for a cohort born in 1970, for whom educational testing achievements showed a higher correlation to future occupational status. An example of chance in one’s career development can be affected by historical events not under her control. For instance, the cohort born in 1958 entered the work force at a time when the economy was booming, while the cohort born in 1970 graduated college in the middle of a major recession (Schoon et al., 2007). Additionally, the cohort born in 1958, known as trailing-edge baby boomers, experienced great social change growing up in times associated with the assassination of President John F. Kennedy, and protests over the Vietnam War and civil rights and experienced relative calm and conservatism by the time they finished college (Schoon et al., 2007). Whitbourne, Sneed, & Sayer (2009) contend that their college years therefore were not characterized by the level of rebellion of students in earlier cohorts experienced nearly a decade prior, therefore not giving them the same opportunity to challenge authority, to think intensely about identity, and to ultimately make stronger midlife decisions. Decades later, the job market continues to evolve, with prospective college graduates not even knowing what jobs will exist when they finish their educations. This has great
implications for what colleges should do to prepare students for further graduate study and a constantly changing working world.

**Literature on Changing Selves Over Time**

Cross and Markus (1991) explored life span development by surveying a cross-sectional range of people ages 18 to 86 about their motivations, actions, and experiences, acknowledging that a comprehensive study of self-knowledge at different ages had not ever been conducted earlier. The derived concept of “possible selves” not only raised non-mutually exclusive possibilities for one’s personality depending on the context of varying settings, but also acknowledged the influence of the past, present, and future on one’s behaviors and meaning attached to one’s life. This study raised issues faced by individuals experiencing any or all the transitions from adolescence to late adulthood, and how one makes very personal choices as to what events, attitudes, and representations have been important and what will be important in one’s future.

One is perhaps her own best judge of what is possible and what could be in store for her future. Cross and Markus (1991) argue that motivation is often guided by one’s ability to simulate in one’s mind a realm of consequent possibilities. Each consequent possibility could be considered a “possible self.” Being able to imagine certain possibilities may then lead to the conscious directing of behaviors to either achieve positive life results, as in training to become the world’s finest pianist, or to avoid negative consequences like a heart attack by exercising and eating well. Thus, individuals who have more “hoped-for”, or positive possibilities for their future selves are more likely to have positive motivations for their current selves and their present-day choices. This confirms Salmela-Aro and Nurmi’s (1997) findings that one’s life situation does affect goal setting for the future, as future goals along the same life path on which
one already finds himself easily reinforces the confidence one has in her current self and may lead to the building of similar types of goals later in life.

It is important to acknowledge that one’s life span is fluid and individuals will vary in the extent of their flexibility and adaptability to change. Being younger may result in the perception that more possible selves are available from which to choose, but the more conflicting or disparate they are, could result in less directive behavior towards achieving any one of those possible selves. The way individuals view and react to their possible selves can also be very private, and therefore is not necessarily bound by public opinion or standards that would encroach on how freely one defines himself. It was not surprising to see that individuals just out of college through their 30s had fewer concerns over family, but instead focused on work and occupation when describing their current and future selves. Rindfuss (1991) found that discussions of work and school tend to be more individualistic. On the other hand, the oldest respondents identified least with work defining their possible selves and tended to have more a more altruistic outlook on life. Age-related limitations on work and physicality later in life may seem to have the effect of decreasing one’s aspirations which could be perceived as a sense of failure, but may actually account for the higher life satisfaction found in individuals in late adulthood who find themselves with less need to define themselves into specific domains related to occupations, but would rather concentrate on health, self-improvement, and continued personal growth (Cross & Markus, 1991).

However, in Cross and Markus’ (1991) study, it was assumed that the levels of life satisfaction across all age groups were similar. If one’s emotional intelligence is significantly developed during emerging adulthood, one’s level of life satisfaction could be relatively constant over the entire course of one’s life. Additionally, if there are varying ways that individuals can
express the same possible self, this can allow for positive views of oneself to stay true even as actions and behaviors may change. The concept of possible selves has increased the understanding of motivation and life span development, but much is left to be done to explore the entire range of one’s life course. Possible selves could exist simultaneously, or repeat themselves over the course of time. This also has great implications in life choices, especially regarding education, work, and family status.

**Literature on Self-Efficacy and Self-Determination**

One’s motivation comes from a combination of internal and external factors that drives how and why one makes choices (Baxter Magolda, 2007; Brooks & Young, 2011; Ryan & Deci, 2000). Ryan and Deci (2000) define Self-Determination Theory through the multidimensional consideration of how one approaches the making and achievement of goals, recognizing that actions can be influenced by certain pressures, incentives, and varying degrees of personal intent. It is a theory of human motivation and choice making, acknowledging that individuals have inherent tendencies of wanting to learn and satisfy three particular innate psychological needs – competence, autonomy, and relatedness - through their actions. SDT also examines the degree to which an individual’s behavior is made alone and without the influence of external factors. Intrinsic motivation describes this tendency to make decisions out of one’s sheer desire to learn and explore, followed by actions based on these decisions that are fully self-determined. Behaviors based on intrinsic motivation expect no reward other than the self-satisfaction derived from doing them. On the other hand, extrinsic motivation describes the tendency to make decisions based on the influence by external factors, and which may expect a reward or outcome aside from self-satisfaction. Thus, motivation linked to behaviors can be defined along a spectrum from fully non-self-determined to fully self-determined behavior. Additionally, factors
such as an individual’s level of interest, curiosity, initiative, and self-regulation under autonomous conditions, can also be scrutinized in determining how motivation leads to certain choices during one’s undergraduate college years (Durmaz & Akkus, 2016).

Erikson (2000) found that life goals are grounded in generativity, the concept of what one selflessly leaves as a legacy to a future generation and the finding of meaning in such planning. Generativity allows one to make sense of her own life, and accordingly, life goals often are a combination of multiple goals and look towards a long-term horizon, expressed through a set of personal beliefs, motivations, and behaviors. Generativity ultimately focuses on long-term life goals in the hopes of finding meaning, focus, and direction in one’s life. Salmela-Aro and Nurmi (1997) found that from interviewing Finnish college students, their life goals could be grouped into three categories: self-focused, achievement-focused, and family-focused. It was also found that any interest in these goals at the time they entered college still remained while they were in college. No previous research had indicated this finding before. Having crossed one major life transition of entering college proved to not have any impact on disrupting the stability of life goals during this period of emerging adulthood. Subsequent research should focus on additional transitional moments experienced in one’s life to see how individual interests shape life trajectories as this study focuses only on one’s undergraduate college years.

Salmela-Aro and Nurmi (1997) also found that the more individuals were interested in self-oriented and self-determined goals, the more likely they would report fewer positive life events later. This may confirm research that being asked by others to take on additional responsibility is different from only being accountable to oneself, where responding to others’ needs has been shown to increase one’s overall emotional stability (Mortimer & Lorence, 1979; Clausen & Gilens, 1990). In fact, the more individuals were interested in family-oriented goals,
the more likely they would experience high self-esteem, less depression, and fewer negative life events later. Individuals who were interested in achievement-oriented goals, verifiable by external recognition and credentialing, also had higher self-esteem and lower levels of depression. In turn, life events also had an effect on goals, with positive events increasing the likelihood of having more interest in achievement-oriented goals. There is a real correlation between individual well-being and goal-setting, shown to be in sync with the major transitional moment during emerging adulthood of going from high school to college.

Hill et al. (2010) reiterate that life purpose consists of many related goals and seek to delineate actual content of one’s sense of purpose. The HERI survey developed by the Higher Education Research Institute at the University of California, Los Angeles (UCLA), has been administered to American college students for decades, without regard for the impact of any specific college campus on the life goals of college students. The HERI survey’s life-goal items were reclassified as 17 distinct purpose orientation measures by Hill et al. (2010). In a study of HERI data from a graduating class of seniors at a Midwestern private mid-sized Catholic university, Hill et al. (2010) asked seniors to rate the importance of each of these 17 life goals on a four point Likert scale. Using factor analysis, these 17 goals could be separated into four distinct factors: prosocial orientation, financial orientation, creative orientation, and personal recognition orientation. Prosocial orientation defined goals of helping others in society; financial orientation defined financial stability and success; creative orientation leaned towards artistic originality, and personal recognition orientation highlighted one’s desire for respect and acknowledgment by others. Little research has been done in the form of longitudinal studies to track HERI’s life goal items across time to see if goals and purpose orientations change
significantly years after college graduation though Hill et al. (2010) hypothesize that purpose orientations may vary across one’s lifetime.

However, Hill et al. (2010) found that as students ready themselves for graduating from college, they are positively oriented across all four purpose orientations. However, only high scores on prosocial orientation were positively correlated with the satisfaction of the college experience and predictive of future personal growth, generativity, integrity, and purpose during middle adulthood, 13 years after graduation. Salmela-Aro and Nurmi (1997) would agree that a prosocial orientation has predictive value of one’s well-being later in life. Though a college that promotes institutional values, educational practices, and activities to encourage prosocial behaviors could draw a self-selected student body, it is important to note the purpose orientation of an entire university could offer great benefits to similarly minded students, thereby confirming the concept of fit with an ideal college match.

In addition to one’s consideration of possible selves and overall sense of purpose in life, self-efficacy is another concept that researchers have found that contributes to one’s goals, level of self-determination, and purpose orientation. Self-efficacy is defined as one’s confidence in his own abilities to complete tasks and produce desired results, and this happens best where motivation, opportunity, and the means to achieve goals converge (DeWitz, Woolsey, & Walsh, 2009). Some would argue this is most evident during one’s college years; others contend this is ongoing throughout the course of one’s life development. Regardless, DeWitz et al. (2009) found that self-efficacy drives self-determined behaviors, performance, and persistence and is positively correlated with purpose in life. When individuals see successful results of their own hard work, it reinforces the attitudes and behaviors associated with self-efficacy. Breso,
Schaufeli, and Salanova (2011) confirm that a positive relationship exists between self-efficacy, engagement, and performance in school.

Luthans, Luthans, and Luthans (2004) ascribe the development of self-efficacy through experience, performance, validation, and the intersecting of economic, human, social, and psychological capital, thus considering positive effects of external influences on decision making. Positive self-efficacy encourages people to set high outcome expectations for themselves, both personally and professionally and allows these judgments to drive self-determined action choices throughout one’s life (Bonitz, Larson, & Armstrong, 2010; Dahling, Melloy, & Thompson, 2013). It is important to note that external factors beyond one’s control, such as a global recession, may lead to the fear of one’s insecurity about the future, and accompanying fears about job security and financial instability. Thus, indirect outcomes of such external factors may affect one’s self-efficacy, self-determination, and confidence, mediated by additional factors such as increased age, gender, and unemployment rate. Thus, where interests, confidence, expectations and choices align, self-efficacy and self-determination can positively ground one’s values and life choices.

**Summary**

Emerging adulthood has been found to be a critical time for individuals to obtain further education and training in preparation for a working world in which they will function for much of the rest of their adult lives. The choice to even continue to college after high school supports a direct link many see between educational opportunities and employment viability, and students may have specific reasons they will choose to attend a particular institution. While in college, students face an abundance of decisions that they must make in order to make productive and meaningful experiences for themselves.
Thus, research on the self-efficacy and self-determination of college students can provide a wealth of guidance for college administrators charged with enhancing the student environment in dorms and classrooms, and enhancing advising opportunities for academic and mental health advising. It is evident that college students are faced with extensive opportunities for self-exploration, especially when they are exposed to a residential college experience away from home and have to navigate through newfound freedom and independence in preparation for the working world. Research behind the appeal of a liberal arts education finds that values of obtaining breadth of knowledge strengthens a student’s character and helps to develop personal qualities such as judgment, reason, and a sense of giving back to society, among other life skills gained from living and learning in a predominantly residential environment with peers of similar age and educational experience.

Having to choose a major and consider a variety of academic opportunities are among decisions all college students face. A multidimensional consideration of how one approaches the making and achievement of academic goals, recognizing that actions can be influenced by certain pressures, incentives, and varying degrees of personal intent, frames self-determination and the extent that internal and external factors affect one’s behaviors and decisions. Where academic interests, confidence, expectations, and choices align, self-efficacy and self-determination can positively ground one’s values and choices throughout one’s college years and throughout one’s lifetime. Continued research through longitudinal studies, which allows for time to pass to account for changes in interests and self-determination levels may have great implications for post-college career and life counseling. As existing literature has primarily focused on predominantly Caucasian middle-to-upper-class America, further research should
delve deeper into patterns of choices that may vary with the socioeconomic, cultural, or ethnic background of individuals.
Chapter III: Research Design

This study aimed to evaluate a series of decisions made during young adulthood, including the choice to attend Wellesley College and how Wellesley students have made academic and co-curricular choices during their undergraduate years. Choices such as picking a major, deciding whether to study abroad, pursue an internship, or participate in a club, not only affect one’s overall college experience, but constitute a common set of decisions all college students must make. Though these choices may periodically change before graduation, students are forced to make decisions that affect a path to graduation and beyond.

Research Questions

Specifically, the following questions addressed the research problem and guided this mixed methods study:

1. Why do students choose to attend Wellesley College?
2. How do Wellesley students make the academic and co-curricular choices they do during their four years the at this particular liberal arts college?
3. What factors impact a Wellesley student’s decision in making academic and co-curricular choices during the four years of her college experience?
4. Are there trends among students with similar backgrounds?

Research Design

This was a descriptive mixed method study that used a constructivist-interpretivist framework relying almost entirely on the perspectives of the study’s participants. A large sample size was pursued allowing the researcher to engage in an analysis that best affords an understanding of the study participants’ experiences at the college (Creswell, 2012). In pursuing a mixed method study, data were collected in multiple stages, using both qualitative and
quantitative traditions. According to Butin (2010), the researcher is part of the truth being sought, as a collector of stories and a documenter of a diverse array of perspectives when using such a research lens, and this methodology allowed the research purpose to be explored, described, and evaluated in comprehensive detail. The researcher acknowledged the participatory nature of her position as Director of Admission at Wellesley College and used a combination of existing admissions, financial aid, and institutional data, along with a Likert scale survey and open-ended questions presented to current college students, followed by focus group interviews with students by invitation.

**Population and Sampling**

The target population in this study was the Wellesley College Class of 2018, the current senior class. Though this population is still active as current college students, this study first focused on the analysis of an existing data set, the Entering Students Survey (ESS) collected upon acceptance to college in 2014, along with surveying and interviewing students while they were still on campus. The ESS data were disaggregated to filter out non-enrolled students originally admitted to the Class of 2018. The study site was on the campus of Wellesley College in Wellesley, MA, in order to access data already collected by the Offices of Admission and Institutional Research and to have access to current students on campus.

Founded in 1870, Wellesley College is a private, nonprofit, highly selective, liberal arts college for women. Each class consists of nearly 600 students, representing a diverse array of geographical, socioeconomic, and ethnic backgrounds, with students demonstrating a range of academic interests and participating in a range of programs and opportunities while in college. Wellesley continues to remain true to its motto, “Not to be ministered, but to minister”, in order to graduate “women who will make a difference in the world.” These classical and liberal ideals
continue today as upon graduation, Wellesley College students obtain a bachelor of arts degree, representing the completion of a liberal arts course of study with broad distribution requirements over four undergraduate years. Though Wellesley is a highly selective single-sex institution, it is not unique in its mission to honor diversity and inclusion as a way of life on campus. It shares with other institutions a commitment to building a living and learning community in which students can thrive intellectually and socially, and one in which students are inspired to craft goals for a lifetime of opportunity.

**Recruitment and access.** For the purpose of this study, all members of the Class of 2018 were asked to voluntarily participate in answering an online Qualtrics survey, providing a population size of nearly 25% of the total student population on campus, and perhaps more importantly, students who have been on campus for at least three years. This allowed for the most diverse sample in terms of background, while having a common graduation date as a point of reference. Such homogeneous sampling allowed for ease in group interviewing, which was a latter component of the research study (Creswell, 2012). The Wellesley College Class of 2018 is also the first class of students to have had the opportunity to experience “shadow grading” during their first semester of college. Shadow grading provided these students in their first semester pass/no credit grades on their transcripts in order to reduce effects of publicly seen grades on subsequent academic choices. The philosophy behind shadow grading is to ease students into the expectations of a rigorous academic program while focusing their goals towards developing intellectual curiosity, engagement, and inspirational learning, rather than solely fixating on a grade point average.

Students had the option to remain completely anonymous in the survey or to identify themselves. Such voluntarily submitted survey data were used to conduct statistical analysis for
the quantitative portion of the study.

Following completion of the online survey, respondents were invited to participate in focus groups as a subsequent part of the study. All focus groups were conducted by the primary researcher on the Wellesley College campus at a place convenient to participants. The purpose and intended benefits of this research were conveyed to participants, and it was made clear that participation was entirely voluntary.

**Outreach.** In order to recruit as many students as possible from the Class of 2018, the researcher e-mailed all 585 members of the class, described the research study, and asked for their participation in a 15-minute online survey asking about their backgrounds and about decisions that have affected their academic and co-curricular choices during their time at Wellesley College. Since the researcher was employed at the College, students only received one invitation to participate in the survey so that the researcher would not appear to be coercing students to participate. Recruitment for the voluntary focus group sessions was done as the last question in the online survey. Amongst the number of volunteers who volunteered to participate in a focus group, 19 students were chosen and participated with another invitation. Focus groups lasted no longer than 90 minutes and took place at a later date at a convenient location on campus. Remuneration was offered for those participating in the focus group sessions in the form of a $20 gift card.

**Data Collection and Analysis**

**Instruments.** Institutional data were available to identify students of the Wellesley College Class of 2018, and existing aggregate data upon the students’ entry in the summer of 2014 were available from the Entering Students Survey (ESS), a voluntary survey conducted of entering members of the class. ESS data were readily available so there was no need to design an
experiment and invite individuals to experience or practice an outcome. The population of students in the Class of 2018 was not separated into random treatment groups as in experimental cases. The ESS data had not yet been analyzed in the way the research questions intended. As the ESS data set may have been used by varying departments for many purposes, additional variables could only be added through additional research methods such as a specifically designed survey instrument, but ESS data were still able to be evaluated in detail and in conjunction with new data for this research purpose.

To capture more varied data in order to reach a more comprehensive conclusion about decision making of college students at a liberal arts institution, a web-based Qualtrics survey using Likert scales and open-ended questions was employed. Quantitative survey responses revealed themes for which deeper inquiry with individual participants provided in-depth insight to address the research problem.

The final phase of the study included interviews with a sample of volunteer participants upon survey completion. The use of broad and general questions during focus groups allowed for efficient collection of information to inform the research questions in a controlled manner, while allowing the researcher to interpret subjective answers of the participants and draw conclusions via induction, rather than starting with an already developed theory and trying to prove or disprove it (Creswell, 2012). Focus groups were conducted for no more than 90 minutes each and were recorded and transcribed for analysis.

**Phase I: Collection and analysis of the ESS survey.** The use of the ESS was to help answer the first research question and identified possible unifying characteristics of the population of students who participated in the next two stages of data collection in this study.

The survey identified independent variables which may be have affected one’s ultimate
enrollment decision, upon controlling for differences in high school background and geography. Other important variables included ethnicity (several nominal, dichotomous variables) and citizenship (a nominal and dichotomous variable). Wellesley’s Office of Institutional Research’s own data validation and analysis procedures already produced parsed data to compare with data obtained from the researcher’s survey.

**Phase II: Collection and analysis of the researcher’s survey.** All four research questions predetermined a set of variables used throughout the study. Factors that affected a student’s decision to matriculate and make academic and co-curricular choices at Wellesley were treated as independent variables. What decisions are made and why students make them are variables that were measured on a continuous 5-point Likert Scale in the web-based survey. Demographic variables such as parental education and socioeconomic background were treated as moderator variables. In addition, open-ended questions provided students the opportunity to provide freeform answers regarding their motivations to attend and to make choices at Wellesley.

A Qualtrics survey was released to the entire Class of 2018 where n=585 in December 2017. Survey responses were organized and scrutinized to eliminate incomplete and outlying data. The use of a web-based survey of the Class of 2018 was the easiest and most efficient way to collect background information through questions indicated in the survey instrument included as Appendix D. In looking at what decisions were made and the motivations behind them, both independent and dependent variables were continuous variables, and all quantitative data were analyzed using IBM SPSS (Statistical Package for Social Sciences, v. 25).

**Phase III: Collection and analysis of focus group data.** Both responses to the Qualtrics survey’s open-ended and Likert scale questions informed questions further explored during focus group conversations. The qualitative phase consisted of follow-up focus groups with student
volunteers, with conversation questions developed based on the results of the online surveys. The researcher served as the focus group facilitator and asked permission to record the focus group conversations, after which they were transcribed for later analysis.

Approximately fifteen interview questions focused on further reflection on students’ academic and co-curricular choices during their time in college. Interview data were analyzed using inductive and thematic analysis after such qualitative data were transcribed and coded in order to present the study’s findings in final narrative form. A goal was to understand common themes that appeared throughout the focus group interview process. A phenomenological approach to this study via a thematic organization of responses sorted through the open-ended responses in order to construct a descriptive narrative to better understand the sample population’s shared experience at Wellesley College and how motivation has affected academic choices made during their undergraduate years.

As indicated in Appendix F, focus group questions included, but were not limited to the following:

1) Regarding your expectations of your academic/co-curricular choices upon matriculation, what did you imagine of your college experience and the opportunities you would be afforded?

2) How were those expectations changed once you got to college?

3) Regarding your overall college experience to date based on your academic/co-curricular choices, did you take advantage of opportunities you expected to have? How?

4) Why did you make these particular decisions [identify specific decisions]? How much did life after graduation affect your decisions during college?
5) Who in your life influenced any of these decisions, and why?

6) What would you have changed about the choices you’ve made affecting your academic experience, if anything?

7) What academic benefits have your experienced in a liberal arts environment?

8) Describe your preparation and readiness for life after Wellesley College. What benefits do you foresee upon graduating?

9) What is the most important skill that you have learned in college that will help you after graduation?

10) What advice do you have for prospective students looking at liberal arts colleges?

11) What advice do you have for prospective students looking at Wellesley College?

12) What is your understanding of Wellesley’s mission? Is this the same as what you thought when you entered as a first-year student?

13) What is your anticipated immediate plan for the fall after graduation?

Validity and Reliability

Internal validity. Participants were informed of the researcher’s background and positionality as a staff member at Wellesley College. Focus group and survey data were triangulated for thematic commonalities. It was important to minimize threats to internal validity in this study and to keep in mind that this study was not to be predictive. A sample homogeneous population in the same location did not pose a great threat to internal validity.

Entering student surveys were administered each year by either the College Board or Wellesley College to its entering students, and these surveys were pilot tested to validate them. As they have been administered year upon year, data were easily compared to ensure consistency.
in measuring the same factors, demonstrating content and criterion-related validity. There was little threat to instrumentation bias, data collector bias, or implementation error.

Any threat to internal validity would have stemmed from mortality threat of surveying an entire class of students that resulted in a population of students not able or willing to complete the survey. The nature of self-assessed data and the perception of having to answer questions “correctly” with no fail-safe test-retest procedures to maximize reliability, along with the danger of receiving incomplete answers or outlying data points may have also posed a threat to internal validity. However, the collection of additional information about characteristics of the sample population helped to minimize these threats.

**Reliability.** The ESS was tested for reliability through the method of repeated measurement of multiple classes of entering first-year students. In order to collect data that are stable and consistent, survey questions were made unambiguous and clear, and the web-based Qualtrics instrument was distributed through one standardized mass communication to the Class of 2018. Students had the flexibility to answer the survey on their own timing and under their own conditions of comfort before a reasonable deadline date.

**Ethical Considerations and Protection of Human Subjects**

Personal identifying information and survey responses were kept confidential and were coded so that individual responses would not be able to be traced back to the original respondent unless consent was granted to tie results of the Qualtrics survey to one’s ESS. This method constituted minimal-risk research, qualifying for Category I (Exempt Review) status, and as the ESS was already collected for varying purposes for departments across campus, this study presented no possible risk or harm to the sample population. Focus group transcripts were stored on the researcher’s personal computer and participant privacy was protected. All data were
secured so that no one except the researcher had access to the material.

No analysis of data was performed prior to the receipt of a written certificate of approval issued as Appendix G by both the Wellesley College Institutional Review Board (IRB) and the Northeastern University Institutional Review Board (IRB) even if the study was not conducted on the Northeastern campus. All personal identifying information from any admissions data was kept confidential, and students were referred to by a random identification number. Survey responses from the Wellesley College Entering Students Survey constituted an existing data set that provided aggregate data that was also kept confidential and whose individual responses were not able to be traced back to the original respondent unless the student agreed to have her survey tied to her ESS survey submitted four years earlier. All data were kept in a locked file cabinet.

Respondents to the online survey did not need to sign a consent form. The online unsigned consent was included at the very beginning of the invitation to participate in the survey. It was clear that responding to the survey indicated a willingness to participate on their own free will. Clicking on the survey link to commence the survey was the equivalent of providing informed consent.

Focus group participant privacy was protected and transcripts were kept confidential. Due to the nature of the group conversation that occurred during a focus group, participants were reminded that participation was voluntary and that everyone will be asked to protect one another’s privacy by not discussing the contents of the session upon its completion. The researcher requested focus group participants to sign an informed consent form giving permission for their responses to be collected and evaluated as part of the study, shown as Appendix E. Creswell (2012) advised that a consent form include specific language such as: 1) a participant’s right to withdraw from the study at any point, 2) the purpose of the study and the
timing, expectations, and procedures being used to collect data from study participants, 3) confidentiality protection of the study participants, 4) any known risks and/or benefits of participation in the study, 5) the signature of both the researcher and participant, and 6) any further information as to how to contact the researcher with questions before or during the time frame of participation in the study and inquiries as to the results following the study. The researcher kept the hard copy signed consent forms in a locked file cabinet and will do so for the minimum three years required by Northeastern’s IRB. Any focus group volunteer who chose not to sign the informed consent form would have been told she would not be interviewed by the researcher and was not eligible for remuneration. No volunteer declined to sign the informed consent form.

This method constituted minimal-risk research, qualifying for Category I (Exempt Review) status. It involved data already collected from ESS respondents who were admitted to Wellesley College for the fall of 2014 and subsequent data collection that did not identify particular subjects. Any reference to particular responses involved the use of pseudonyms. Any survey instrument, interview procedures, and observations did not place respondents at risk of liability, or present any risk to their financial standing or reputation. Participants were made fully aware that they were contributing to a research topic that has relevance to all liberal arts institutions, and perhaps all college-going students who are presented with similar decisions to make throughout their undergraduate years. There have been no plans for any subsequent follow-up with students who participated in the online survey nor with those who were chosen to participate in a focus group discussion.
Summary

This study used data from both an established dataset of information from voluntary respondents to Wellesley’s Entering Students Survey specifically for the Class of 2018 when it first entered college in the fall of 2014, and a specifically designed Qualtrics questionnaire for the Class of 2018 referenced as Appendix D. Both surveys, in addition to voluntary focus groups to obtain further qualitative information, helped to answer the research questions using both quantitative and qualitative methods in a descriptive manner and a constructivist-interpretivist framework that relied almost entirely on the perspectives of the study’s participants. A diverse sample of the entire Class of 2018 was pursued allowing the researcher to engage in an analysis that best afforded an understanding of the study participants’ experiences at Wellesley College.
Chapter IV: Research Findings

This research study explored many decisions that college students are expected to make during their college years and the influences that drive them in trying to craft productive and fulfilling experiences during their undergraduate years. With the study participants consisting of a sample population from Wellesley College’s Class of 2018, the researcher used the following research questions to guide this mixed methods study:

1. Why do students choose to attend Wellesley College?
2. How do Wellesley students make the academic and co-curricular choices they do during their four years at this particular liberal arts college?
3. What factors impact a Wellesley student’s decision in making academic and co-curricular choices during the four years of her college experience?
4. Are there trends among students with similar backgrounds regarding the academic and co-curricular choices students make and how they make them during their four years of college experience?

Data were collected from an online Qualtrics survey conducted in December 2017 followed by focus groups conducted in January-February 2018, and Qualtrics survey respondents were also asked to give consent for the researcher to obtain results of their Entering Student Survey which they may have been filled out in the summer of 2014 prior to their registration on campus as first-year students. The first research question was best explored using qualitative data. For the remaining research questions, in order to describe trends in the data collected in this study, both descriptive and inferential statistics were used to analyze the quantitative data obtained from both surveys.
Qualtrics Survey Participants

All members of the Wellesley College Class of 2018 were given the opportunity to fill out an online Qualtrics survey in December 2017. Of a total population of 585 students, 69 students participated in the online survey and responded within a three-week timeframe. This represented a 12 percent response rate. Tables 1 and 2 describe this sample population:

Table 1

*Qualtrics Survey Respondent Characteristics*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Respondents to Qualtrics Survey % or response (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Citizen or Permanent Resident</td>
<td>97% (67)</td>
</tr>
<tr>
<td>Foreign National</td>
<td>3% (2)</td>
</tr>
<tr>
<td>Graduate of a High School in the US</td>
<td>93% (64)</td>
</tr>
<tr>
<td>Graduate of a High School in Another Country</td>
<td>7% (5)</td>
</tr>
</tbody>
</table>

Table 2

*Qualtrics Survey Respondents by Ethnicity*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Respondents to Qualtrics Survey % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>26% (19)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>4% (3)</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1% (1)</td>
</tr>
<tr>
<td>Hispanic/Latina</td>
<td>10% (7)</td>
</tr>
<tr>
<td>White</td>
<td>60% (43)</td>
</tr>
</tbody>
</table>

Ninety-seven percent of the participants were US citizens or permanent residents, and 93% of them graduated from a high school in the US. Sixty percent of the participants described themselves as white, 26% Asian, 4% black, 1% American Indian or Alaska Native, 10% Hispanic/Latina, with multiracial participants identifying all races and ethnicities that applied to them.
Table 3

*Qualtrics Survey Respondents by Highest Level of Parental Education Obtained*

<table>
<thead>
<tr>
<th>Highest Level of Parental Education</th>
<th>Respondents to Qualtrics Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>2% (1)</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>6% (4)</td>
</tr>
<tr>
<td>Some College/2-Year Degree</td>
<td>3% (2)</td>
</tr>
<tr>
<td>Subtotal: % of Students Defined as First Generation College Students</td>
<td>11% (7)</td>
</tr>
<tr>
<td>Four-Year Degree</td>
<td>23% (16)</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>33% (23)</td>
</tr>
<tr>
<td>Professional Degree</td>
<td>23% (17)</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>10% (6)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (69)</td>
</tr>
</tbody>
</table>

Eleven percent of the students considered themselves first-generation college students, meaning that they would be in the first generation of their family to pursue a four-year college degree, as shown in Table 3. Two percent of participants had at least one parent who finished less than a high school education, 6% had a parent whose highest level of education was high school, and 3% of students had a parent who had some college experience and/or completed a two-year degree. Twenty-three percent of participants had a parent complete a four-year degree, 33% had a parent complete a master’s degree, 23% had a parent who finished a professional degree, and 10% of students had a parent who had completed a doctorate.

Table 4

*Additional Qualtrics Survey Respondent Characteristics*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Respondents to Qualtrics Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepted to Wellesley Early Decision</td>
<td>25% (17)</td>
</tr>
<tr>
<td>Receiving Need-Based Financial Aid</td>
<td>67% (46)</td>
</tr>
<tr>
<td>Average Financial Aid Received Per Year</td>
<td>$46,237 (46)</td>
</tr>
<tr>
<td>Held a Part-Time Job During College</td>
<td>72% (50)</td>
</tr>
<tr>
<td>Average Number of Hours Worked</td>
<td>10 hours (50)</td>
</tr>
<tr>
<td>Current GPA range (first semester senior year)</td>
<td>2.85-3.94 (47)</td>
</tr>
</tbody>
</table>
According to Table 4, 25% of participants were accepted to Wellesley College under the Early Decision plan which meant these students submitted their applications and an agreement to attend if admitted by November 1 of their senior year of high school and were admitted by mid-December, committing them to attend Wellesley College. Sixty-seven percent of participants were also receiving need-based financial aid from the College at an average of $46,237, based on those who answered how much aid they were receiving during their senior year. At least one student was receiving a high of $80,000 in financial aid, while 33% of the participants were not on financial aid. Of the 72% of respondents who noted that they worked a part-time job during college, they worked an average of 10 hours per week in any combination of on- and off-campus jobs. All first-generation college students indicated that they worked part-time jobs during college, ranging from an average of 2-20 hours per week.

Of 47 students who responded with their current GPA, the range was between 2.85 and 3.94, with a mean of 3.50.

Survey Responses

Majors. Thirty-seven percent of respondents reported choosing a double major or minor. Of 62 total respondents, nine (15%) reported having switched their major once, and two (3%) reported switching their major twice after declaration. The remaining 51 students, or 82% of respondents, did not change their major from the time they declared it in their sophomore year. Table 5 summarizes main considerations of students as they were choosing their majors. The majority of students indicated genuine interest in the subject matter of their chosen major, consistent with previous research that showed personal interests played a significant role in students’ motivation to acquire knowledge (DeMarie and Aloise-Young, 2003).
Table 5

*Considerations Affecting Choice of Major*

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Not a Factor</th>
<th>May be a Factor; Did Not Affect Decision</th>
<th>May be a Factor; Helped me Lean Towards Decision</th>
<th>Very Much a Factor</th>
<th>Primary Reason Major was Chosen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will Lead to a Lucrative Future</td>
<td>33%</td>
<td>25%</td>
<td>25%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Following Familial/External Advice</td>
<td>58%</td>
<td>17%</td>
<td>17%</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>Path to Graduate School/ First Job</td>
<td>42%</td>
<td>25%</td>
<td>17%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Good at Subject in High School</td>
<td>25%</td>
<td>33%</td>
<td>33%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>Exploration and Interest in Subject</td>
<td>0%</td>
<td>0%</td>
<td>17%</td>
<td>17%</td>
<td>67%</td>
</tr>
</tbody>
</table>

**Distribution of coursework choices.** Survey participants were asked how many classes they took in each of the areas of humanities, social sciences, and STEM (science, technology, engineering, and mathematics) if their major was not in that same category. For non-humanities majors, of 33 respondents, the number of humanities courses taken ranged from 2-18 (or 6-55%), with a mean and median of seven courses. For non-social science majors, of 34 respondents, the number of social science courses taken ranged from 0-18 (0-53%), with a mean of four and a median of three courses. For non-STEM majors, of 31 respondents, the number of STEM courses taken ranged from 2-10 (6-32%), with a mean and median of four courses. Additionally, 41% of total respondents, or 28 students, took advantage of cross-registration with one or more of Wellesley’s peer institutions: MIT, Babson College, Olin College of Engineering, and Brandeis University. All seven first-generation students in the sample population took advantage of cross-registering at another institution.
Fifty-four percent of respondents, or 37 students, also noted that they took classes they never thought they would have taken in college because of shadow grading in the first semester of their first year. Shadow grading is the practice of not recording a student’s grades from her first semester of her first year on her transcript nor including such grade into the calculation of her overall grade point average (GPA). To relieve some pressure of grades during this important time of transition to college and to encourage exploration and the development of successful study skills while in college, professors only verbally share with students the grades they would have received if they were recorded. However, none of the seven first-generation students said they took advantage of shadow grading to explore, as they made deliberate course choices during their first semester of college and didn’t surprise themselves with subjects they didn’t think they were ever going to take. Shadow grading and its effect on exploration was further explored in the focus group discussions.

By the time the online Qualtrics survey was released to these seniors, they were nearly finished with their penultimate semester of college. Eighty-four percent of respondents noted that they had already finished their liberal arts distribution requirements. Those remaining 16% of students noted that either they were avoiding the remaining subjects until senior year or they just didn’t prioritize these subjects into their schedules any earlier.

**Opportunities explored.** Table 6 indicates additional opportunities available to Wellesley students meant to enhance the academic experience. All first-generation students reported studying abroad, obtaining research opportunities with faculty members, and taking advantage of an internship opportunity.
Table 6

Extent to Which Opportunities have been Explored

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Not Interested</th>
<th>Did Not Take Advantage; Student Wishes She Did</th>
<th>Did Take Advantage: Wishes for More</th>
<th>Took Advantage to Extent Expected</th>
<th>Took Advantage Beyond Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Abroad</td>
<td>17%</td>
<td>34%</td>
<td>7%</td>
<td>22%</td>
<td>20%</td>
</tr>
<tr>
<td>Career Education Office</td>
<td>7%</td>
<td>8%</td>
<td>42%</td>
<td>36%</td>
<td>7%</td>
</tr>
<tr>
<td>Service/Civic Engagement</td>
<td>34%</td>
<td>31%</td>
<td>12%</td>
<td>16%</td>
<td>7%</td>
</tr>
<tr>
<td>Outside of Class Requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research with Faculty</td>
<td>20%</td>
<td>24%</td>
<td>22%</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>Internship</td>
<td>2%</td>
<td>5%</td>
<td>19%</td>
<td>41%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Measures of success. Table 7 reflects how students were measuring success in college. This was asked to further explore how and why students made certain academic choices, especially concerning coursework, and motivation in getting to know faculty members, mentors, and alumnae.
Table 7

*Students’ Measures of Success in College*

<table>
<thead>
<tr>
<th>Measure of Success</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades</td>
<td>4%</td>
<td>5%</td>
<td>11%</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>Feedback from Professors</td>
<td>4%</td>
<td>5%</td>
<td>11%</td>
<td>33%</td>
<td>48%</td>
</tr>
<tr>
<td>How much I’ve Enjoyed Classes</td>
<td>2%</td>
<td>7%</td>
<td>9%</td>
<td>37%</td>
<td>45%</td>
</tr>
<tr>
<td>How much I Felt I’ve Learned</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
<td>29%</td>
<td>64%</td>
</tr>
<tr>
<td>Skills Gained will Benefit Future</td>
<td>0%</td>
<td>3%</td>
<td>4%</td>
<td>38%</td>
<td>55%</td>
</tr>
<tr>
<td>Strength of Network</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>39%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Of 56 students who answered questions about how they were measuring success in college, 80% agreed that grades were an indicator of success in college while 11% neither agreed nor disagreed with this indicator. Eighty-one percent felt that the feedback received by professors was a sign of success and 82% of respondents agreed that how much they’ve enjoyed their classes was an indicator of success in college. Ninety-three percent of respondents agreed that how much they felt they have learned was a good indicator and the same percentage of respondents also agreed that skills gained at Wellesley believed to increase employment and/or graduate school opportunities was another indicator of success in college. Lastly, 93% of respondents noted that the strength of their network of friends, faculty, mentors, and alumnae was an indicator of a successful Wellesley experience. All first-generation students completely
agreed that both the skills gained for employment and the network gained from being a part of the Wellesley community are measures of college success.

**Student background and Wellesley experience.** Table 8 indicates the extent to which students’ backgrounds, knowledge of Wellesley’s mission, and awareness of the intent of a liberal arts education may have guided decision making in making the Wellesley experience her own. First-generation students completely agreed that they are ready to enter a coed world and made choices on their own to participate in activities outside of class that they felt were an integral part of their Wellesley experience.
Table 8

*Students’ Background and Knowledge Base*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Experience Affects Wellesley Choices</td>
<td>9%</td>
<td>7%</td>
<td>5%</td>
<td>48%</td>
<td>31%</td>
</tr>
<tr>
<td>Awareness of What Liberal Arts Would Teach</td>
<td>2%</td>
<td>14%</td>
<td>16%</td>
<td>36%</td>
<td>32%</td>
</tr>
<tr>
<td>Wellesley Mission and Values Affected Decision to Enroll</td>
<td>12%</td>
<td>13%</td>
<td>15%</td>
<td>46%</td>
<td>14%</td>
</tr>
<tr>
<td>Choices Made Align with Desire to Hone Liberal Arts Skills</td>
<td>5%</td>
<td>5%</td>
<td>9%</td>
<td>31%</td>
<td>50%</td>
</tr>
<tr>
<td>Liberal Arts Skills are Valuable</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
<td>29%</td>
<td>61%</td>
</tr>
<tr>
<td>I am Prepared for a Coed World</td>
<td>2%</td>
<td>11%</td>
<td>12%</td>
<td>27%</td>
<td>48%</td>
</tr>
<tr>
<td>Participating in Co-Curricular Clubs/Activities/Job was My Decision Alone</td>
<td>4%</td>
<td>15%</td>
<td>8%</td>
<td>27%</td>
<td>46%</td>
</tr>
<tr>
<td>Participating in Co-Curricular Clubs/Activities/Job was Valuable to the Wellesley Experience</td>
<td>5%</td>
<td>0%</td>
<td>2%</td>
<td>33%</td>
<td>60%</td>
</tr>
</tbody>
</table>

**Student beliefs about decision making.** Table 9 shows beliefs and influences on their futures after graduation. Some decision making during their college years aligns with what they
anticipate is in store for their futures. First generation students all agreed that their futures were in their own hands alone, and that there would be unlimited opportunities available to them after graduation. They were also most confident in knowing that they were free to do whatever they wanted and were most optimistic about having the most choices for the rest of the lives, while all admitting to being strategic about choices made at Wellesley.

Table 9

*Student Beliefs about Decision Making*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Completely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Future is in My Hands Alone</td>
<td>11%</td>
<td>38%</td>
<td>7%</td>
<td>37%</td>
<td>7%</td>
</tr>
<tr>
<td>There will be Unlimited Opportunities Available as a Wellesley Grad</td>
<td>13%</td>
<td>24%</td>
<td>16%</td>
<td>36%</td>
<td>11%</td>
</tr>
<tr>
<td>I Feel Free to Do What I Want in My Life</td>
<td>7%</td>
<td>16%</td>
<td>14%</td>
<td>47%</td>
<td>16%</td>
</tr>
<tr>
<td>I Have Real Choice in What I Have to Do in My Life</td>
<td>3%</td>
<td>9%</td>
<td>5%</td>
<td>59%</td>
<td>24%</td>
</tr>
<tr>
<td>I’m Intentional and Strategic in my Choices at Wellesley because They Will Affect my Future</td>
<td>5%</td>
<td>16%</td>
<td>18%</td>
<td>36%</td>
<td>25%</td>
</tr>
</tbody>
</table>

*Next year’s plans.* Sixty-nine percent of respondents anticipate entering the work force upon graduation, while 13% are in the process of applying to and anticipate starting graduate school or a post-baccalaureate program next year. 2% anticipate entering the military, with the remaining 16% of respondents taking some time before further school or work or remain
undecided as to future plans. Parental education had no significant correlation on the anticipated plan for students’ first year after graduation.

**Entering Student Survey Respondents**

Members of each incoming first-year class are surveyed in the summer prior to fall matriculation, addressing topics such as preparation and readiness for college, expectations of the Wellesley experience, and how entering first-years see themselves as students. The survey is voluntary, and participants have the leeway to answer as many questions as they wish. In the summer of 2014, the incoming Wellesley Class of 2018 was asked to respond to a Wellesley-specific Entering Student Survey administered by the Office of Institutional Research. Of the 69 students who participated in the online survey in December 2017, 33 students had submitted a survey in 2014 and gave permission to the researcher to obtain the results for this study. Tables 10, 11, and 12 provide detail about this sample population:

**Table 10**

*Entering Student Survey Respondents by Ethnicity*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Respondents to Qualtrics Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>21% (7)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>3% (1)</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Hispanic/Latina</td>
<td>9% (3)</td>
</tr>
<tr>
<td>White</td>
<td>67% (22)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (33)</td>
</tr>
</tbody>
</table>
Table 11

**ESS Survey Respondents by Highest Level of Parental Education Obtained**

<table>
<thead>
<tr>
<th>Highest Level of Parental Education</th>
<th>Respondents to Qualtrics Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>0% (0)</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>3% (1)</td>
</tr>
<tr>
<td>Some College/2-Year Degree</td>
<td>6% (2)</td>
</tr>
<tr>
<td>Subtotal: % of Students Defined as</td>
<td>9% (3)</td>
</tr>
<tr>
<td>Generation College Students</td>
<td></td>
</tr>
<tr>
<td>Four-Year Degree</td>
<td>18% (6)</td>
</tr>
<tr>
<td>Masters Degree</td>
<td>40% (13)</td>
</tr>
<tr>
<td>Professional Degree</td>
<td>27% (9)</td>
</tr>
<tr>
<td>Doctorate Degree</td>
<td>6% (2)</td>
</tr>
<tr>
<td>Total</td>
<td>100% (33)</td>
</tr>
</tbody>
</table>

Table 12

**Other ESS Survey Respondent Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Respondents to Qualtrics Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Citizen or Permanent Resident</td>
<td>94% (31)</td>
</tr>
<tr>
<td>Foreign National</td>
<td>6% (2)</td>
</tr>
<tr>
<td>Graduate of a High School in the US</td>
<td>91% (30)</td>
</tr>
<tr>
<td>Graduate of a High School in Another</td>
<td>9% (3)</td>
</tr>
<tr>
<td>Country</td>
<td></td>
</tr>
<tr>
<td>Accepted to Wellesley Early Decision</td>
<td>33% (11)</td>
</tr>
<tr>
<td>Receiving Need-Based Financial Aid</td>
<td>61% (20)</td>
</tr>
<tr>
<td>Average Amount of Aid Received Per Year</td>
<td>$43,340 (20)</td>
</tr>
<tr>
<td>Not on Financial Aid</td>
<td>39% (13)</td>
</tr>
</tbody>
</table>

Of the 33 students who gave permission to access their Entering Student Surveys, 91% were US citizens or permanent residents and 88% attended a high school in the US. 67% of the respondents described themselves as white, 21% Asian, 3% black, and 9% Hispanic/Latina. 9% of the students considered themselves first-generation college students, meaning that they would be in the first generation of their family to pursue a four-year college degree. 3% had a parent whose highest level of education was high school, and 6% of students had a parent who had
some college experience and/or completed a two-year degree. 18% of participants had a parent complete a four-year degree, 73% had a parent complete a graduate or professional degree.

Thirty-three percent of participants were accepted to Wellesley under the binding Early Decision plan. Sixty-one percent reported they were going to receive need-based financial aid starting in their first year at Wellesley College.

**Tying Entering Student Data (2014) to Senior Data (2018): Univariate Statistics**

Univariate analysis looks at individual variables to answer descriptive questions about a sample population (Creswell, 2012). Table 13 categorizes the primary independent variables and Table 14 categorizes the dependent variables to be referenced in this study. Note that independent variables taken from the Entering Students Survey (ESS) may have been considered dependent variables in any analysis of the ESS as an instrument on its own. For the purposes of this study, these variables were used as independent variables when looking at data from the small population of students who agreed to let the researcher compare their ESS data from 2014 to their survey answers in 2018. This allowed for a panel study of longitudinal and correlational analysis for data obtained from these 33 students.
Table 13

*Independent Variable Definitions*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Variable Type</th>
<th>Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Citizen or Permanent Resident</td>
<td>Nominal, Dichotomous</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Graduate of a US High School</td>
<td>Nominal, Dichotomous</td>
<td>Yes, No</td>
</tr>
<tr>
<td>First Generation College Student</td>
<td>Nominal, Dichotomous</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Highest parent level of education</td>
<td>Nominal</td>
<td>Less than High School, High School Graduate, Some College, 2 Year Degree, 4 Year Degree, Master’s Degree, Professional Degree, Doctorate Degree</td>
</tr>
<tr>
<td>Hispanic/Latina ethnicity</td>
<td>Nominal, Dichotomous</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Race</td>
<td>Nominal</td>
<td>White, Black or African American, Native American Indian or Alaskan, Asian, Native Hawaiian or Pacific Islander</td>
</tr>
<tr>
<td>Accepted to Wellesley Early Decision</td>
<td>Nominal, Dichotomous</td>
<td>Yes, No</td>
</tr>
<tr>
<td>Receiving financial aid</td>
<td>Nominal, Dichotomous</td>
<td>Yes, No</td>
</tr>
<tr>
<td>ESS: Anticipated major (2014)</td>
<td>Nominal</td>
<td>Variety of Values</td>
</tr>
<tr>
<td>ESS: Interest in opportunities (2014) (each opportunity specifically named)</td>
<td>Ordinal, Likert Scale</td>
<td>1-Not important at all, 2-Slightly interested, 3-Somewhat interested, 4-Very interested</td>
</tr>
<tr>
<td>Independent Variable</td>
<td>Variable Type</td>
<td>Possible Values</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>----------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>ESS: Confidence in college success (2014)</td>
<td>Ordinal, Likert Scale</td>
<td>1-Unprepared, 2-Somewhat prepared, 3-Quiite well prepared, 4-Very well prepared</td>
</tr>
<tr>
<td>ESS: Importance of reasons to attend college (2014)</td>
<td>Ordinal, Likert Scale</td>
<td>1-Not important at all, 2-Somewhat important, 3-Very important, 4-Extremely important</td>
</tr>
<tr>
<td>ESS: Measures of success (2014)</td>
<td>Ordinal, Likert Scale</td>
<td>1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly Agree</td>
</tr>
</tbody>
</table>

Table 14

**Dependent Variable Definitions**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Variable Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic major(s)</td>
<td>Nominal</td>
</tr>
<tr>
<td>Current GPA</td>
<td>Continuous, 0.0-4.0 scale</td>
</tr>
<tr>
<td>Hours worked per week in a part-time job</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Extent of having taken advantage of opportunities on campus</td>
<td>Ordinal, Likert Scale</td>
</tr>
<tr>
<td>Extent to which student believes in self-motivation</td>
<td>Ordinal, Likert Scale</td>
</tr>
<tr>
<td>Extent student agrees with Wellesley’s liberal arts philosophy</td>
<td>Ordinal, Likert Scale</td>
</tr>
<tr>
<td>Measure of success in 2018</td>
<td>Ordinal, Likert Scale</td>
</tr>
<tr>
<td>Biggest decision to make this year</td>
<td>Nominal</td>
</tr>
<tr>
<td>Post-graduation plan</td>
<td>Nominal</td>
</tr>
<tr>
<td>Anticipated first field of work</td>
<td>Nominal</td>
</tr>
</tbody>
</table>


Table 15 shows the extent to which students felt prepared for academic work in college and what their current senior year GPAs stand.
Table 15

*Current GPA based on Self-Reported Academic Preparedness in 2014*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>GPA Range</th>
<th>GPA Mean</th>
<th>GPA Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESS: Somewhat Prepared</td>
<td>5</td>
<td>3.36-3.94</td>
<td>3.62</td>
<td>3.59</td>
</tr>
<tr>
<td>ESS: Quite Prepared</td>
<td>21</td>
<td>3.00-3.94</td>
<td>3.53</td>
<td>3.60</td>
</tr>
<tr>
<td>ESS: Very Well Prepared</td>
<td>7</td>
<td>2.85-3.80</td>
<td>3.33</td>
<td>3.40</td>
</tr>
</tbody>
</table>

Table 16 indicates the level at which students anticipated interest in certain college opportunities and then how students took advantage of such opportunities over the course of their undergraduate years. Table 17 compares how students regarded indicators of success in 2014 prior to matriculation and then now in their senior year.

Table 16

*Extent of Interest in College Opportunities*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Study abroad: Not at all</td>
<td>0</td>
<td>Study abroad: No interest</td>
<td>6</td>
</tr>
<tr>
<td>Study abroad: Slightly</td>
<td>4</td>
<td>Study abroad: Wish I did it</td>
<td>10</td>
</tr>
<tr>
<td>Study abroad: Somewhat</td>
<td>5</td>
<td>Study abroad: Did it, wish more</td>
<td>2</td>
</tr>
<tr>
<td>Study abroad: Very</td>
<td>24</td>
<td>Study abroad: Did it, very satisfied</td>
<td>15</td>
</tr>
<tr>
<td>Internship: Not at all</td>
<td>0</td>
<td>Internship: No interest</td>
<td>1</td>
</tr>
<tr>
<td>Internship: Slightly</td>
<td>1</td>
<td>Internship: Wish I did it</td>
<td>2</td>
</tr>
<tr>
<td>Internship: Somewhat</td>
<td>9</td>
<td>Internship: Did it, wish more</td>
<td>6</td>
</tr>
<tr>
<td>Internship: Very</td>
<td>23</td>
<td>Internship: Did it, very satisfied</td>
<td>24</td>
</tr>
<tr>
<td>Volunteering: Not at all</td>
<td>1</td>
<td>Volunteering: No interest</td>
<td>12</td>
</tr>
<tr>
<td>Volunteering: Slightly</td>
<td>10</td>
<td>Volunteering: Wish I did it</td>
<td>10</td>
</tr>
<tr>
<td>Volunteering: Somewhat</td>
<td>9</td>
<td>Volunteering: Did it, wish more</td>
<td>5</td>
</tr>
<tr>
<td>Volunteering: Very</td>
<td>13</td>
<td>Volunteering: Did it, very satisfied</td>
<td>5</td>
</tr>
<tr>
<td>Part-time job: Not at all</td>
<td>1</td>
<td>Part-time job held by senior year</td>
<td>26</td>
</tr>
<tr>
<td>Part-time job: Slightly</td>
<td>4</td>
<td>Attending graduate school next year</td>
<td>4</td>
</tr>
<tr>
<td>Part-time job: Somewhat</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time job: Very</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning on graduate school</td>
<td>23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 17

*Students’ Agreement of Variable Being a Measure of Success*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grades</td>
<td>31</td>
<td>27</td>
</tr>
<tr>
<td>How much I have learned</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>How much I enjoyed classes</td>
<td>32</td>
<td>30</td>
</tr>
<tr>
<td>Strength of my network</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Feedback from professors</td>
<td>31</td>
<td>25</td>
</tr>
<tr>
<td>Skills for future employability</td>
<td>22</td>
<td>30</td>
</tr>
</tbody>
</table>

The small sample size shown in Table 16 and Table 17 that allowed for a longitudinal comparison of student responses from 2014 to 2018 may not look to yield significant changes between attitudes. However, bivariate analysis can look deeper into the relationship of two variables, or extent to which a variable is considered a measure of success in 2014 and again in 2018.


To compare the change in attitude as to what extent students considered as measures of success in both 2014 and 2018, using the same Likert scale in both sample populations, the extent to which a measure of success is regarded were considered ordinal variables upon which cross-tabulations and the chi-square test were run. The assessment in 2014 can be considered the independent variable and the re-assessment in 2018 is the dependent variable, both of which don’t have too many categories to necessitate their consideration as continuous variables. In comparing these two ordinal variables, a chi-square test looked at how the row and column variables are independent from one another.

**Measures of success.** Though only 33 students answered and consented to having their 2014 ESS tied to their current survey for this question, in the chi-square test for the extent to which grades are considered a measure of one’s success, SPSS returned a p-value of 0.032.
Since this p-value is less than 0.05, at a confidence level of 95%, the difference is statistically significant. Thus, a significant difference was found in the responses of students from 2014 to 2018 who considered grades to be an important measure of success (chi-square = 16.85, df = 8, p = .032). To calculate how strong the relationship is between student responses in 2014 to 2018, the effect size for the chi square test, or phi, was 0.726, which is considered a strong relationship, as shown in Table 18.

Table 18

Cross-tabulation of College Grades Considered as a Measure of Success from 2014 and 2018

<table>
<thead>
<tr>
<th>Grades considered as measure of success in 2014</th>
<th>Grades considered as measure of success in 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither Agree nor Disagree</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Neither Agree nor Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Agree</td>
<td>0</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>2</td>
</tr>
</tbody>
</table>

Note. p ≤ 0.05.

It was found that there was no significant difference in the responses of students from 2014 to 2018 who considered how much they felt they were learning as a measure of success (chi-square = .59, df = 2, p = .745). The extent to which students changed the consideration of their network of people and connections made during college as a measure of success also did not yield a strong relationship when measured at 2014 and then again at 2018 (chi-square = 3.6, df = 6, p = .731). Similarly, the extent to which their opinions about feedback from professors was a measure of success also was not statistically significant (chi-square = 7.07. df = 8, p = .529). Table 19 summarizes these results.
A chi-square test run for the extent to which students considered how much they enjoyed their classes as a measure of success, assessed between 2014 and 2018, showed a stronger relationship (chi-square = 12.30, df = 3, p = .006). Since this p-value is statistically significant at the 95% confidence level and phi = .62, this indicates the relationship between the variables is considered moderate to strong. In Table 20, it is interesting to note that in 2014, no student was neutral or disagreed that enjoyment of classes would be a measure of success, and in 2018, no student was completely neutral on the subject either.

Of note is the relationship between one’s consideration of skills gained for future employability in 2014 to a reassessment in 2018. Though no student strongly disagreed that skills gained in college to increase one’s employability was a measure of success in both 2014 and 2018.
and 2018, the test statistic found in running a chi-square test was not statistically significant as $p = .466$ (chi-square $= 8.69$, df $= 9$, $p = .466$). Though the lone student who agreed in 2014 that skills gained were considered a measure of success disagreed with the statement in 2018, while the one student who disagreed with the statement in 2014 ended up agreeing with the statement in 2018, the rest of the small sample pool did not yield a statistically significant relationship between the two time periods. Table 21 summarizes student attitudes about skills gained for employment as a measure of success in college.

Table 21

*Cross-tabulation of Skills Gained for Employment as a Measure of Success from 2014 and 2018*

<table>
<thead>
<tr>
<th>Skills considered as measure of success in 2014</th>
<th>Skills considered as measure of success in 2018</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Chi-Square</th>
<th>Phi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>8.69</td>
<td>.521</td>
</tr>
<tr>
<td>Neither Agree nor Disagree</td>
<td></td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Students’ choices of academic opportunities.** In comparing students’ interest in 2014 in working a part-time job to those who had held a job by their senior year, it is not statistically significant to say there is a relationship other than chance (chi-square $= 25.34$, df $= 36$, $p = .908$). Similarly, there was no statistical significance between attitudes towards taking advantage of opportunities such as study abroad (chi-square $= 5.02$, df $= 8$, $p = .755$), holding an internship (chi-square $= 8.98$, df $= 8$, $p = .344$), participating in a club (chi-square $= 9.84$, df $= 8$, $p = .276$),
or volunteering outside of any course requirement (chi-square = 13.64, df = 12, p = .324) and the extent to which these opportunities were pursued.

Entering first-year students were asked in the ESS how important certain factors were to their Wellesley education, such as the importance of broad liberal arts exposure, opportunities to develop skills valuable for the workplace, opportunities to meet and work with individuals from a different background, and the opportunity to gain a global perspective. Students were also asked how prepared they felt to success academically and how prepared they were to get along socially at Wellesley. In comparing what students considered important to their college educations in 2014 with actual outcomes, there was one significant difference to note.

In the Qualtrics survey, students were asked to count the number of courses taken outside of their predominant area of study, whether it be the humanities, social sciences, and STEM, if they did not major in that area. Using chi-square tests to compare one’s 2014 assessment of importance of getting broad liberal arts exposure to the number of courses ultimately completed in non-major area fields, it is interesting to note that at a 90% confidence level, it is statistically significant that for non-STEM majors, there is a relationship between their belief in the importance of a liberal arts education and the number of STEM classes taken as electives (chi-square = 21.19, df = 14, p = .097, phi = .801). However, for non-social science majors, there was no significant relationship between a belief in the importance of a broad liberal arts education and the number of social science classes taken (chi-square 17.94, df = 16, p = .328), and the same is true for non-humanities majors and the number of humanities classes taken as electives (chi-square = 20.56, df = 20, p = .424).

Another hypothesis could have assumed that students who believed in the importance of college to develop skills valuable in the workplace would use skills gained to increase
employability as a measure of success. However, there is no statistical relationship between the two variables (chi-square = 8.20, df = 6, p = .224).

**Tying Entering Student Data (2014) to Senior Data (2018): Analysis of Variance and Multivariate Statistics**

**Correlation between entering attitude towards grades and current GPA.** Those who agreed or strongly agreed in 2014 that the goal of getting the best grades possible in college was very important would have been assumed to have the highest GPAs in 2018. Table 22 shows that when running an analysis of variance (ANOVA) test to compare an independent variable with more than two categories with a continuous dependent variable such as current GPA, the intercept is found to be statistically significant, meaning that there is wide variance among the reported GPA (corrected model p = .398, intercept = 0.00). The effect size is measured by eta squared, which is .991 for the intercept. However, the way they thought of themselves in 2014 compared to what they have achieved in GPA in 2018 is not significant, with an eta squared value of .066 for p = .398. A negative adjusted R squared of -0.003 suggests a weak predictive relationship. R squared is an indication of variance in the dependent variable that takes into account all predictor variables.

Table 22

*ANOVA Tests of Between-Subject Effects: Attitude Towards Grades and GPA*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting the Best Grades Possible in College</td>
<td>.181</td>
<td>2</td>
<td>.090</td>
<td>.953</td>
<td>.398</td>
<td>.066</td>
</tr>
<tr>
<td>Intercept</td>
<td>293.212</td>
<td>1</td>
<td>293.212</td>
<td>3093.880</td>
<td>0.000</td>
<td>.991</td>
</tr>
</tbody>
</table>

Note. R squared = 0.066; Adjusted R squared = -.003
Students in 2014 were also asked to assess their preparedness to succeed in college. When running an ANOVA to look at the assessment of academic preparedness to current GPA in 2018, again, there was no significant difference (corrected model p = .226, eta squared = .101) with an adjusted R square = .037 indicating a poor fit in this model.

**Correlation between entering perception of preparedness and current GPA.**

Students in 2014 were also asked to assess their preparedness to get along socially with others in college. In Table 23, using both independent variables, the relationship between multiple predictors and one effect variable can be observed using multiple linear regression. Adjusted R squared for this model = .217 indicating a modest fit with the data. This means that for every increased step on the Likert scale that assesses confidence in their academic and social preparedness, there is a negative drop in GPA. Beta is stronger for the independent variable, “how well are you prepared to get along socially” (standardized Beta = -.437) and it is shown that one’s self-assessment of preparedness to succeed socially as a good predictor of GPA is statistically significant at 0.05 level (p = .015). While interesting that an increase in the assessment of one’s academic preparedness for college before the first year predicts a lower GPA, the relationship between the self-assessment of academic preparedness and senior year GPA is not statistically significant in this model. Caution must also be considered as regression analysis is designed to be used with independent continuous ordinal and nominal variables while our Likert scale model does not necessarily assume that the distance between scale points are consistent, thus the coefficient B may not always be what it appears.
Table 23

Coefficients of Dependent Variable: Current GPA (2018)

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std Error</td>
</tr>
<tr>
<td>Constant</td>
<td>-.089</td>
<td>.082</td>
</tr>
<tr>
<td></td>
<td>-.183</td>
<td>-1.085</td>
</tr>
<tr>
<td></td>
<td>.287</td>
<td></td>
</tr>
<tr>
<td>Prepared to succeed academically</td>
<td>-.179</td>
<td>.069</td>
</tr>
<tr>
<td></td>
<td>-.437</td>
<td>-2.601</td>
</tr>
<tr>
<td></td>
<td>.015</td>
<td></td>
</tr>
</tbody>
</table>

Note. R Squared = .217

For nominal dependent variables with more than two categories such as in Likert scale survey question, a polytomous universal model (PLUM) takes into account the ordering of the variables. Students were asked in the Qualtrics survey to what extent they took advantage of taking classes they never thought they would take because of shadow grading (pass/fail) in their first semester. Using three independent variables from the 2014 ESS, the importance of a broad liberal arts education, the importance of gaining skills for lifelong learning, and the importance of opportunities to discover and build one’s intellectual passion, it was found that the relationship was not statistically significant and this model using a chi-square test does not fit better than any other baseline model with no predictors, with p = .525. Even when dropping the independent variable of the important of gaining skills for lifelong learning, p = .641 indicating no significant predictors of whether or not a student would surprise themselves and take a class they never thought they would.

Results from other 2014 expectations of college. Students were also asked in the Qualtrics survey to what extent they took advantage of study abroad opportunities. Using two independent variables from the 2014 ESS, the importance of Wellesley being able to provide a global perspective and the importance of being able to interact with people of diverse backgrounds, it was found that the relationship was statistically significant with p = .061
indicating the model fits well with the data. The outcomes predicted by this model as compared to actual outcomes align to indicate that the more important students found those two independent variable factors at the start of their college career predicts the extent to which they would pursue study abroad during their college years. A Pseudo R-Square calculated by SPSS, using either Cox & Snell’s measure (.274) or Nagelkerke’s measure (.288), we find a modest fit.

Looking at the parameters in the individual independent variables, the response “very important” to the variable “importance that Wellesley provides you with a global perspective” was significantly related to responses on the dependent variable, the extent to which study abroad is pursued (p = .029, coefficient = 2.071). Overall, there was a relationship between how important students wished for Wellesley to provide them with a global perspective and the extent to which they took advantage of study abroad though the difference is mainly in the category of those who found wanting a global perspective “very important”.

Replacing the importance of being able to interact with people of diverse backgrounds with initial interest in study abroad in 2014 as an independent variable, a PLUM model yielded p = .076, with Cox & Snell’s measure of Pseudo R-Square to be .226 and Nagelkerke’s measure to be .238. Still, the response “very important” to the variable “importance that Wellesley provides you with a global perspective” had a positive coefficient of 1.894.

A PLUM model was also created to compare the relationship between the importance of discovering one’s intellectual passion in college and the importance of gaining deep expertise in a specific area, two independent variables from the 2014 ESS, with the extent to which a student has pursued cross registration with peer institutions by senior year. At a 90% confidence level, this relationship was significant with p = .101, but it was not significant at a 95% confidence level. It is interesting to note that at a lower confidence level, the response categories of
“somewhat important” and “very important” to the variable “importance that Wellesley provides you an opportunity to develop deep expertise in a specific area” indicated the best predictor of a slight inclination towards pursuing cross registration with both $p = .15$.

When looking at the 2014 ESS independent variables of the importance of Wellesley being able to provide opportunities to develop skills for the workplace and to meet individuals from other backgrounds, it could be assumed that this would have an effect on the extent to which students used career services on campus, which was overhauled to a new career education model in 2015-16 to start mentoring students in their first year. When a PLUM model was run between these variables, $p = .314$ which found the relationship to be not significant.

**Summary of Survey Data Findings**

Sixty-nine students, representing 12 percent of the Wellesley College Class of 2018, responded to a Qualtrics survey about academic choices they have made during their time in college. A majority of students picked a major and didn’t switch after declaring, but over 50% of the students also took classes they never imagined they would have ever taken. The three biggest indicators of success in college noted by respondents were the strength of their network of friends, faculty, mentors, and alumnae, the skills gained believed to increase employment and graduate school opportunities, and how much they felt they learned in college. There was no significant change in these beliefs between when first asked before entering college in 2014 and in 2018.

Of all choices in 2018, grades were noted as the weakest indicator of success while at Wellesley, followed by the level of enjoyment of classes. Between 2014 and 2018, the difference in student responses to these two factors as measures of success was deemed to be statistically significant. Interestingly, students in 2014 who said they were best prepared to
succeed socially and academically in college were most likely to have lower GPAs in the senior year.

First-generation college students agreed that their futures after college were completely in their own hands and were the most confident and optimistic about their future opportunities. However, they were also the most strategic in their choices made during their college years. This is consistent with significant results found through multivariate analysis that revealed students who indicated in 2014 that they wanted to gain a global perspective and exposure to people of diverse backgrounds were more likely to have studied abroad, and those who wanted to develop expertise in a particular area were more likely to cross-register at a non-liberal arts institution.

**Focus Group Participants**

To obtain qualitative data, the researcher relied on focus group interviews allowing participants to respond freely to a set of open-ended questions in a face-to-face group format. As qualitative inquiry is meant to explore phenomena of a population in an in-depth way, the researcher deliberately selected participants through a process of purposeful sampling of individuals from Wellesley’s Class of 2018 (Creswell, 2012). Of the 69 Qualtrics survey respondents from this senior class, 36 volunteered to be randomly selected to participate in a subsequent focus group. All 36 students were contacted, and 19 agreed to sign an informed consent form and participated in one of five focus groups held in the student center at Wellesley College between January and February 2018. Each focus group session lasted no more than 90 minutes and no focus group exceeded six students in size. Table 24 details the volunteer focus group participants in this study with pseudonyms.
### Participants in Focus Groups

<table>
<thead>
<tr>
<th>Name</th>
<th>Major/Double Major or (Minor)</th>
<th>Background Revealed During Focus Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy</td>
<td>sociology</td>
<td>older sister attended Wellesley</td>
</tr>
<tr>
<td>Anne</td>
<td>math/economics</td>
<td></td>
</tr>
<tr>
<td>Caryn</td>
<td>art history/(math)</td>
<td>one parent does not have college degree; walk-on varsity athlete</td>
</tr>
<tr>
<td>Dana</td>
<td>Religion/(English)</td>
<td>self-identified as low income; one parent does not have college degree</td>
</tr>
<tr>
<td>Elise</td>
<td>political science</td>
<td></td>
</tr>
<tr>
<td>Hannah</td>
<td>chemistry</td>
<td></td>
</tr>
<tr>
<td>Hazel</td>
<td>comparative literature/(environmental studies)</td>
<td></td>
</tr>
<tr>
<td>Jennifer</td>
<td>psychology/education studies</td>
<td></td>
</tr>
<tr>
<td>Joann</td>
<td>middle eastern studies/psychology</td>
<td></td>
</tr>
<tr>
<td>Joy</td>
<td>religion/middle eastern studies</td>
<td></td>
</tr>
<tr>
<td>Kate</td>
<td>chemistry</td>
<td>low income student</td>
</tr>
<tr>
<td>Lisa</td>
<td>chemistry</td>
<td></td>
</tr>
<tr>
<td>Mandy</td>
<td>history</td>
<td>older sister attended Wellesley; recruited athlete</td>
</tr>
<tr>
<td>Marie</td>
<td>computer science/math</td>
<td></td>
</tr>
<tr>
<td>Melena</td>
<td>media arts and sciences</td>
<td></td>
</tr>
<tr>
<td>Missy</td>
<td>geosciences/(economics)</td>
<td>first generation college student</td>
</tr>
<tr>
<td>Nan</td>
<td>computer science</td>
<td>low income student</td>
</tr>
<tr>
<td>Phoebe</td>
<td>math/economics</td>
<td></td>
</tr>
<tr>
<td>Stacy</td>
<td>art history/media arts and sciences</td>
<td>first generation college student</td>
</tr>
</tbody>
</table>

### Themes that Emerged from the Research

As part of the phenomenological approach to this study, a thematic organization of responses to the open-ended responses on the Qualtrics survey as well as reviewing transcripts from the focus group conversations was necessary to construct a descriptive narrative to better understand the sample population’s shared experience at Wellesley College and how academic choices have been made during their undergraduate years. Phenomenology seeks to understand the subjective experiences of the participants (Patton, 2002). Focus groups were a way to allow the researcher to understand the perceptions and perspectives of current Wellesley students in
their final year of college. All focus groups were recorded and transcribed by rev.com. The researcher then used HyperRESEARCH software to organize and code the textual data and collapse them into themes.

**Research Question 1: Why do Students Choose to Attend Wellesley College?**

Both respondents to an open-ended question in the Qualtrics survey as well as participants in focus groups cited common reasons as to why they chose to matriculate at Wellesley. Their reasons demonstrated significant research done by the students prior to matriculation as to what they expected from becoming part of the Wellesley community. Table 25 details key themes that emerged from the coding for common ideas that aligned to the first research question.

Table 25

*Themes Emerging from Research Question 1: Why do Students Choose to Attend Wellesley College?*

<table>
<thead>
<tr>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to the alumnae network and getting to know professors well are the top reasons students chose to matriculate at Wellesley.</td>
</tr>
<tr>
<td>Gaining self-assurance, confidence, and well-roundedness in preparation for the real world with similarly high-achieving peers was another major reason students chose to matriculate at Wellesley.</td>
</tr>
<tr>
<td>Wellesley College is known for its dedication to making it financially feasible for all admitted students to attend.</td>
</tr>
</tbody>
</table>

**Access to the alumnae network and getting to know professors well are the top mentioned reasons students chose to matriculate at Wellesley.** Many students mentioned the influential alumnae network (“the most powerful women’s network in the world”) and quality relationships with professors as direct contributors to the strong community feel. Both alumnae and professors were mentioned as part of how the community dedicates itself to promoting others in the community. One survey respondent wrote, “I wanted to get an education and make
connections that would help me in the professional world after graduation.” Others knew they were interested in a small liberal arts college environment for “the classroom experience and professor accessibility.”

Joy, who admitted to doing research on Wellesley three years before she applied to colleges, said, “It was an alum who told me...that Wellesley is a finishing school for CEOs. We would be very polished and very fierce and intelligent and very commanding, which…is a little true!” Dana, who mentions she came from an underfunded and under-resourced public high school, echoed a similar understanding that “Wellesley’s mission was to crank out super high-powered and very successful women…very, very well-rounded people.”

Gaining self-assurance, confidence, and well-roundedness in preparation for the real world with similarly high-achieving peers was another major reason students chose to matriculate at Wellesley. A minority of the students who responded to the survey had legacy ties to the College or already had a history of women in their families having attended single-sex institutions. This contributed to their knowledge of Wellesley’s reputation of empowering women through such examples cited as small class sizes, women’s-only classes would boost confidence, a sense of sisterhood, its founding based on promoting the success of women, and “a distinctive culture that really encourages people to grow and take control of their own lives”.

One focus group respondent who had family members attend other women’s colleges said, “Each of them attributes a large portion of their confidence and self-assuredness to having attended such institutions. I wanted in on the go-girl-gumption.”

For some students, it took an on-campus visit to convince them Wellesley felt like their new home. One survey respondent mentioned, “I visited upwards of 37 colleges…so I knew what I wanted – Wellesley just felt right. I felt as though Wellesley students are more committed
to competing against themselves than with one another.” Another student who visited campus before matriculating added, “Everyone I met was either someone I wanted to be in class with or be friends with.”

Even though a handful of respondents initially were not interested in attending a women’s college, the community vibe, the academic rigor and reputation, the beautiful campus, and “the ability to speak my mind without feeling like ‘that girl’ which I felt so often in high school”, contributed to their decisions to enroll. Another self-aware respondent added, “Wellesley seemed like a place where I could undergo both personal and academic growth in a safe, empowering environment,” while another student admitted, “I did not choose Wellesley because it was a women’s college, but I valued that and was happy to go to one.”

**Wellesley College is known for its dedication to making it financially feasible for all admitted students to attend.** In the online survey, generous need-based financial aid packages were also cited as a reason some students ultimately matriculated, with some noting that Wellesley was their cheapest option for college. However, the participants of the focus groups reflected more on the expected experiences they would have at Wellesley instead of focusing on the ways they would be able to pay for it. Caryn, whose older sister also attended Wellesley, summed up, “The thing I value the most about Wellesley is how supportive we are with each other and of our individual passions. I think this is one of the few places I’ve truly felt comfortable being super passionate and super nerdy.”

Stacy, a first generation college student, had never heard of Wellesley until she watched *Mona Lisa Smile*, a movie about Wellesley College, the night before the application was due. Then she realized that the application was free and that if she got accepted, she wouldn’t turn down the opportunity because generous financial aid would make it possible for her to attend,
regardless of her ability or inability to pay: “It's that kind of support…lifting up people, lifting up low income people and minority voices, and that's the kinds of things that Wellesley stands for.”

This has great implications for all institutions that are able to make a college education affordable and accessible, especially for students and families who once thought these institutions would be out of the realm of possibility for them to attend.

**Research Question 2: How do Wellesley Students Make the Academic and Co-Curricular Choices They do During Their Four Years at this Particular Liberal Arts College?**

The second research question delved into the choices made by Wellesley students during their undergraduate years. Table 26 summarizes two main themes describing how students came to make certain choices at Wellesley.

**Table 26**

*Themes Emerging from Research Question 2: How do Wellesley students make the academic and co-curricular choices they do during their four years at this particular liberal arts college?*

<table>
<thead>
<tr>
<th>Students expected to take a range of courses across the liberal arts spectrum. Some found majors, minors, or electives just by being forced to explore.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shadow grading was seen as more positive than neutral for seniors looking back to their first semester of college.</td>
</tr>
</tbody>
</table>

Students expected to take a range of courses across the liberal arts spectrum. Some found majors, minors, or electives just by being forced to explore. In addition to choosing a major with the option to double major or minor in another field, Wellesley students also must fulfill a writing requirement, a foreign language requirement, a quantitative reasoning requirement, and nine distribution requirements that exposes them to the breadth of the liberal arts spectrum. Anne, a math and economics double major, said about the liberal arts, “I guess I didn’t really understand what that meant…when I was 18. But the distributions have shown me what liberal arts is, and I’ve come to appreciate it for that reason.” Jennifer, a psychology and
education double major, added, “I feel like my interests are diverse enough…distribution requirements were excuses to take classes I was really interested in but not really relevant to my majors.” Kate, a chemistry major, echoed that she would have taken her distribution classes for fun anyway, so the distribution requirements didn’t make much difference in her intent to choose a diverse assortment of courses, especially non-sciences ones, over four years.

Some students found that they stumbled onto certain decisions because they had to fulfill certain academic requirements, such as distribution requirements or the quantitative reasoning (QR) overlay. Caryn, an art history major and math minor admits, “If I hadn’t been required to take math, I never would have taken it after high school, and then I definitely would not be a math minor right now.” Missy, a first generation college student and geosciences major and economics minor, found her way to economics through the QR overlay and settled on geosciences after initially thinking she would declare another major. She realized on the later side that she had been spending all her time focused on trying to complete another major, instead of “being more open to the different things that I could do outside of what I thought I would have liked and wanted to do.”

**Shadow grading was seen as more positive than neutral for seniors looking back to their first semester of college.** The Class of 2018 was also the first class that had the opportunity to experience shadow grading during its first semester. Many focus group respondents commented that shadow grading reduced the amount of stress they experienced because it helped ease them into the academic expectations of college. Some noted that shadow grading allowed them to take classes they knew would be challenging, and others noted that they could explore fields in which they had no experience without having to worry about their actual
grade. Some students chose an especially diverse set of classes that first semester because of shadow grading.

Others took classes they had planned to take anyway, but shadow grading made it easier for them to enjoy a balanced first semester with new activities and unforeseen circumstances, as experienced by Mandy, a recruited athlete who broke her thumb that semester but managed to finish a handful of pre-med requirements early: “Wellesley has stretched me in terms of what I find interesting and what I think I'm good at, using both sides of my brain. I don't think I could've gotten it anywhere else as much as I've gotten it here.”

Nan, a low income student, is tremendously grateful for shadow grading:

I got a D in my first CS class. If that had been on my transcript, I would've had to change my major because there was no way I was going to get a job. To be frank, I'm working at Google [next year] and there's no way I would've gotten that internship if I had that on my transcript at all…It also really helps students who can't afford to explore as much as the college would want us to because I would not be in this field.

Stacy, double majoring in art history and media arts and sciences, summed it up by saying, “I think that whoever created this idea knew that everyone coming is wound so tight about failure. We don't even know what success here looks like, so how are we so worried about failure.” She felt that shadow grading helped students to focus on the learning process, something that wasn’t a focus in high school where students were more concerned with their GPAs. She also felt that the mix of backgrounds and interests of students in each class contributed to an appreciation of the diversity of the student body.

When asked if students switched majors after initially declaring one, 18% of students who responded said they switched once or even twice. A couple respondents struggled with
content and the classes citing grade deflation policies, and both “felt unsupported in the
department”. Another lamented, “I did not like the types of people [in certain department] or the
opportunities focused on money when I care most about people.” Another student found her
initial major too restrictive: “I didn’t feel like the credit requirements would really allow me to
take advantage of a liberal arts education; I wanted to study multiple languages while here”
while another respondent was “frustrated by the inflexibility and lack of creativity” in the initial
major’s department. Marie, a computer science and math double major remembers initially
leaning towards math then realizing, “‘Oh, I love them both equally. I don’t have to choose,’ and
then I just majored in both.” Joann, a Middle Eastern and psychology double major, credits
wanting to learn more about her background and identity which led her towards Middle Eastern
studies and learning Arabic. However, personal interest in statistics even though she “had taken
Intro [statistics] and hated it” led her to taking another stats class out of curiosity which then led
to her double major declaration in her junior year. Hazel, a comparative literature major and
environmental studies minor did some self-reflection in choosing her major: “I realized that
languages are a priority for undergrad for me. I can do whatever in grad school…but you're only
going to get so much time to study languages in this kind of an environment.”

Some students took advantage of cross registration at a peer institution to take classes not
offered at Wellesley. Chloe explained, “I'm doing most of my exploration at Wellesley and using
cross-registration as exploitation. I knew that I was interested in finance, computer science, and
math. So I took a lot of those classes at MIT.” Four students who took at least one class at MIT
said it helped to boost their GPAs because grading seemed to be easier there. Though some
others cited the long bus commute to Cambridge as an obstacle to cross-registration there, they
found that at closer campuses, they could still experience learning in a new environment,
especially one that is coed with a different campus culture, which was a similar reason to one commonly cited by students who chose to study abroad.

Making such academic choices does involve some tradeoffs as explained by Anne, “I didn’t study abroad, and I know that I’m always going to regret that, but I picked up a minor in place of…and that’s something I knew I would have to make that trade off.” Jennifer agreed, “Going into college, I always wanted to take a lot of foreign language and I prioritized that a lot. I think that came at the expense of other things, like going abroad during the semester.” Caryn added, “I probably would have imploded if I had done every single thing that I could have done and I've appreciated the opportunity to pick which ones I do do.”

Students seem to have custom tailored a rewarding experience upon which they could reflect, such as Amy who said:

I kind of wish I'd taken MIT classes, but then I wouldn't have taken the amazing classes I've taken here. Or…not going abroad led to me getting a better chance of being house president. So, certain decisions made better opportunities for next ones, so I kind of wish I had gone abroad and taken more classes at other places, but if I had, maybe I wouldn't be where I am where I like being where I am.

It is evident that Wellesley students are busy and that they recognize how unique the residential experience is during this point in their lives. Hazel admitted that she probably has a fuller schedule than most of her peers, but she has tried to be as well-rounded as possible before she enters the work force and has less time to focus on so many different tasks and interacting with so many different people: “That kind of a schedule and that kind of a lifestyle… they’re not normal at another college campus let alone out in the real world! I think my Google calendar will never look this colorful again.”
Research Question 3: What Factors Impact a Wellesley Student’s Decision in Making Academic and Co-Curricular Choices During the Four Years of Her College Experience?

The third research question delved into the influences on student decision making while a student is in college. Insight into the self-motivation of college students coupled with any external pressures they feel while in a residential college setting was revealed in four primary themes as outlined in Table 27.

Table 27

Themes Emerging from Research Question 3: What factors impact a Wellesley student’s decision in making academic and co-curricular choices during the four years of her college experience?

<table>
<thead>
<tr>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are driven by personal interest when making choices about their academic and co-curricular experience.</td>
</tr>
<tr>
<td>There is a limit to completely free exploration of opportunities – workload, time, grades, and the impact on the future are taken into consideration. Thus, choices made out of personal interest may still be strategic and deliberate.</td>
</tr>
<tr>
<td>Friends or internet resources are usually the first to be consulted for information or advice; students usually make their own decisions knowing they can make the best choices for themselves.</td>
</tr>
<tr>
<td>Pressure from being around other high-achieving peers and a general Wellesley culture contribute to stress and pressures put on oneself and a social life that was not imagined</td>
</tr>
</tbody>
</table>

Students are driven by personal interest when making choices about their academic and co-curricular experience. From the Qualtrics survey and from the focus group discussions, there was a general consensus that with diverse opportunities came choices to make, as there was agreement that no student could take advantage of every opportunity in a 24-hour, 7-day week. When asked what they expected to be exposed to, and how they took advantage of these choices, Dana explained:

I think all Wellesley students can acknowledge that even though we are here for the learning, we are very much here for the grades as well and the degree that Wellesley will
give us, and the reputation that it has in the professional world. That is definitely a big reason I've stayed motivated academically, is to do well and be able to use Wellesley as a jumping off point because I have done well enough to do so and not let those post-grad opportunities go to waste.

There is a limit to completely free exploration of opportunities – workload, time, grades, and the impact on the future are taken into consideration. Thus, choices made out of personal interest may still be strategic and deliberate. Dana was not alone in acknowledging that after the first semester of shadow grading, actual anticipated grades made a difference in subsequent choices of courses and eventually majors. Marie noted, “What motivates me academically is fear of not getting a good grade and then having it impact. There's a scholarship that I really wanted, but you need a really good GPA.” Missy added that many students came to college with the expectation that if they worked really hard and attended all of their classes and lectures, good grades would result automatically. However, she admitted, “Even now as a senior, I'm still struggling with grade deflation and the workload, which is part of the reason why I had to change my major.”

Looking back, one survey respondent also lamented, “I wish I had understood that a high GPA can be attained through strategic decisions on which classes to take. As someone applying to professional school, it doesn’t matter how much I loved my classes if my GPA isn’t high.” Another agreed and admitted to being afraid she wasn’t going to be admitted to graduate school because of her grades earned in college. Another classmate who is a first-generation college student was also resigned but more optimistic:

I know I am going to graduate and honestly, that is my greatest hope to achieve since being at Wellesley. It has been a bit difficult to be here and grades-wise, I felt like my
future plans were ruined but I know that I am going to graduate with a degree in something that I love.

More than one student used the word “overwhelmed” when she first looked at the course catalog which presented many more classes to choose from than in high school, which is typically known to be more structured with fewer elective options. Now faced with a plethora of options to fill one’s time, students had to be active decision makers, not passive ones. Mandy said, “I expected that there would be all these opportunities and they were just kind of lined up. And I didn't realize how much you had to put into find those things and get them.” Hazel reflected, “I wish more people told you that when you came to Wellesley, how much initiative you're going to have to take to actually get opportunities.” An example she used was work study and how she wished someone could have explained to her the expectations and opportunities not only for on-campus work but also for off-campus opportunities. Not having to understand the difference between Wellesley work study and federal work study before, she ended up not earning money during her first year, which unfortunately was problematic.

Nan simply wished she had more information before she made certain choices, and attributes her lack of information to a knowledge gap based on never having encountered certain opportunities before.

The biggest thing that I think would've radically changed my Wellesley experience ... I was a direct result of being poor. I didn't know Wellesley students get paid for doing research with professors. I had no idea. And I honestly only found that out last year. So, there are so many opportunities in the CS department, even in the sociology department, that I passed on and really would've loved to do because I couldn't afford to spend those hours not being paid. And it was the same rate as my other job too!
Despite having to adjust to the transition to college, more than a handful of students reflected on the fact that having to be active decision makers gave them a greater sense of initiative and confidence. Amy commented that she learned to speak up and share her ideas whenever she had a thought or a question to pose: “I feel like my time at Wellesley has been like, either no one’s going to care, or you’re actually making a positive addition, and either way, it doesn’t matter.”

Melena added that she has learned there is no harm in asking for anything, because the worst that could happen is someone denies the request. In the context of now looking for jobs for next year, Kate chimed in that taking initiative is drilled into Wellesley students and being confident about owning one’s ideas opens many opportunities. She revealed that whenever she felt hesitant in applying for a job because she felt underqualified, she would remind herself that the worst that could happen was that her resume would be ignored and there would be no harm in sending out more resumes. Jennifer reflected that Wellesley provided an environment in which she could do much personal exploration and growth in self-awareness: “Realizing that you are you, you can do what you want to do, and what you have to say is important is something that I think Wellesley really does well.”

Some students were quick to credit exerting initiative and turning exploration in a certain direction to either a parent or a professor. Sometimes an external influence plants a seed and students stumble onto opportunities they never thought they would have encountered. Jennifer noted that many of her interests came from stumbling upon them or being in the right place at the right time. A professor of hers suggested that she would be good at being a teaching assistant, and it turned out that she has really enjoyed being one. Joy agreed:
I think there are two stereotypical models of Wellesley students and majors, and one is ‘My mom told me to do it’ and one is ‘A professor told me I was good at it.’ I find a lot of people can connect with one of those two camps. And mine was very much a professor told me I was good at it… recognizing my talents and my interests was really very flattering and it made me change my major.

It was not unusual to hear that as first-year students, some were terrified of going to office hours. However, one student responded in the Qualtrics survey that, “Once you start going to office hours you realize it’s not a big deal, that’s a normal thing to do. Maybe it’s just a Wellesley thing how close professors are with a lot of students.”

Caryn’s mother initially suggested that she had to take an art history class so that she could be able to have a cocktail party conversation about art. Her initial eye-rolling reaction towards art eventually changed course and turned art into one of her majors, leaving her mom backtracking to say she didn’t really mean for her to major in art history. This is just one example given where students took a piece of advice to head towards a specific opportunity to explore. Subsequent choices and further exploration were mainly done by the students without any further external influence.

Exploration even beyond academic walls also seemed to be driven by genuine interest and self-awareness. A sheer love of hobbies, sports, and music kept students engaged in a variety of student clubs and organizations on campus. One student wrote in her survey, “Volunteering in a field relevant to your career goals reminds you why you’re slaving away in the library week after week. It provides a lot of perspective.” Another student with career goals in mind also said she volunteered in Boston schools and did student teaching because she wanted to work towards obtaining an education certificate.
Another student made choices revolving around the ability to meet new people, especially because “sometimes, it felt good to be around people from the same background as me so that I could feel like I belonged somewhere at Wellesley.” In agreement, one student leader noted that “because I believe that residential life staff can be an incredibly important presence for people and play a huge role in building community on campus”, that was the reason she has served as both a residential adviser and a house president. One student cited personal growth as the reason behind why she chose to serve in college government: “I always wanted to participate in high school but wasn’t comfortable enough in my skin to run for office.”

Monetary concerns also played a role in why students chose to work part-time jobs during their college years: “I have had many jobs because my parents cannot pay for everything for me and I wanted more of a say in what I did at home with my own money.” Only one respondent said that she did not participate in any clubs of student activities because of a need to work a part-time job during the school year, but she also found herself an internship during the semester. Though the student mentioned was not Mandy, she noted, “The biggest thing that I see that makes it not equal is when you have lower income students who have to do work study and that's not their choice.” Nan admitted:

I've had to say to professors, like trying to make one-on-one meetings when there was time where I'm just like, ‘I can't go because I'm working.’ And I've had a lot of professors that are really understanding about it and I've had professors that really bold your academic needs come first. And I'm like, ‘That's cool, but also my family needs a home.’ It would be nice even if they were more understanding, even if the answer was no because they're too busy, just the complete lack of awareness that not every Wellesley student can physically afford to do that is really jarring.
Hazel, who has worked part-time jobs, joined various clubs, held leadership positions in student organizations, and walked onto a varsity athletic team that won a national championship without ever having tried the sport before college, is a shining example of someone who has taken full advantage of exploring and find what she loves. However, she also admits that her family struggles with finances her tuition payments have never been on time: “I’ve had multiple registration holds over the course of Wellesley.” Her other limitation is time, but she is fulfilled: “I have a ‘Do Less’ sticker on my laptop because it's been problematic to a certain extent, but I feel like I've done the things I've wanted [while in college].”

Friends or internet resources are usually the first to be consulted for information or advice; students usually made their own decisions knowing they can make the best choices for themselves. While personal interest played a significant role in the academic choices students made, the influence of advice from peers and alumnae also played a role in opening opportunities for students, especially for those who perceived an information gap between what the College was telling them versus what they could just learn by asking another student. Parents were rarely mentioned as more than just another party allowed to provide input at times, but friends were more often consulted and trusted. In the end, students like Amy still had the last say in terms of making any decision even though she loved hearing input from coworkers, parents, family members and friends. However, in the end, she was just using their input to help inform her own choices.

Sometimes peers offer considerable positive influence, such as how Missy described that a friend of a friend introduced her to the geosciences department and became a primary source of support in that major. Joann added that peers are especially helpful in choosing classes and offering advice about professors, jobs, and fellowships, because they either have personal
experience already or know of someone else who has experienced the same path. Stacy agreed that she learned about many happenings and opportunities on campus just by talking to other students instead of reading a brochure: “I think of Wellesley as a great opportunity to crowdsource information all the time. I think that we do that because we trust each other more than we trust the administration.”

Nan, a first-generation low-income student, had a slightly different answer that Stacy, in the sense that she also found information and advice from students who were at other institutions or were graduates of other colleges. When asked who she turned to for advice about making decisions in college, she replied that her first source of information is the internet because she doesn’t have family members who have had a college experience. As a first-generation college student, she relied on strangers to give her the most practical advice:

Early on, I would go to my advisor and even deans. I was given a lot of, ‘Follow your heart. You're here to explore. College is for learning.’ College is for learning if you have a safety net. I tried to explain that to a lot of people and I know they all meant well. I came in just wanting to graduate and get a job. So, there were times where I really need practical advice. I needed to know what classes I can get skills in that I could apply post-grad. So, I ended up, honestly, on a lot of forums for low-income college students and things like that. A lot of Facebook groups. Honestly, that's where I've gotten the majority of my advice, just from people who are older who've been in those situations in my field, but not that I know personally.

**Pressure from being around other high-achieving peers and a general Wellesley culture contribute to stress and pressures put on oneself and a social life that was not imagined.** Relying on the guidance of peers is sometimes a double-edged sword, however, in a
high-achieving student body in which the biggest competition is with oneself. Caryn lamented that sometimes the culture of stress amongst Wellesley students can be suffocating and peer pressure can make it difficult to step back and relax: “Marathon Monday, the day that everyone coins as the one day Wellesley's fun…2:00 pm everyone's studying again.” One survey respondent would have agreed with Caryn, “I have spent so much time on homework and classes that I feel I missed out a bit on the ‘fun’ parts of college.” Another classmate wrote, “I haven’t been nearly as happy here as I hoped to be, but a lot of that had to do with… difficulties making friends, especially at first. Academically, I have been really happy with what I’ve learned and achieved.”

Sadly, stress exacerbated by a high-achieving campus culture can take its toll, and resources should be carefully aligned and made accessible to those who need professional help outside of just what peers can offer. Students commented that more work needs to be done in the area of helping students to manage their anxieties, especially when the peer network may actually be contributing to the stress. Some respondents noted that it may take weeks to get an appointment at the Stone Center where counseling services are available: “Mental health resources are very inaccessible on this campus, which is hugely problematic at a school like this.”

One survey respondent has tried to make the best sense of her entire experience and what she still has time to do:

I have learned a lot from my classes and experiences here. I haven’t made as many friends as people said I would at college, but I’m gradually feeling more a part of the campus community and there’s still time to get that connection to the alumnae network.
Another classmate summed it up by saying she would have liked a stronger social life, but she’s not necessarily dissatisfied with the one she has.

Research Question 4: Are There Trends Among Students with Similar Backgrounds Regarding the Academic and Co-Curricular Choices Students Make and How They Make Them During Their Four Years of College Experience?

The final research question sought to find any connections of thought between students who came to Wellesley College from similar backgrounds or who had similar experiences of upbringing or academic preparation. Table 28 summarizes two main themes that reoccurred in the focus group discussions with students.

Table 28

<table>
<thead>
<tr>
<th>Theme Emerging from Research Question 4: Are there trends among students with similar backgrounds regarding the academic and co-curricular choices students make and how they make them during their four years of college experience?</th>
</tr>
</thead>
</table>

Access to information regarding opportunities in college is sometimes difficult to find or unevenly distributed to all students, and differences and in socioeconomic backgrounds are magnified in a college community.

Other differences in life experiences prior to entering college also affects the college experience and decision making of students.

Access to information regarding opportunities in college is sometimes difficult to find or unevenly distributed to all students, and differences and in socioeconomic backgrounds are magnified in a college community. This affects the college experience and decision making of students more than other differences between students. Even confident women sometimes struggled with the transition to college and trying to find their niche among other high-achieving peers. This is an area in which professors and student service staff may be able to further assist in the acclimation of students to living and learning from one another. From the focus group discussions, a recurring observation was that socioeconomic differences between
students were much more pronounced in college than in high school. Stacy mentioned, “I think the biggest thing I noticed was, regarding the playing field, was more socioeconomic class that was much more of a shock to me than anything academic I could've expected. I didn't even know that boarding schools were real!” Her realization that boarding schools existed was when she realized half of the students in one of her classes went to boarding school and she had come to realize that her peers had grown up very differently than she had. Though one of the many things she appreciates about Wellesley is the socioeconomic diversity across the student body, the differences is still something she struggles with from time to time: “Academically, I think that some professors did a better job than others, especially first semester freshman year, understanding where everyone was coming from, because it was such a new thing to be in a college course as well.”

Hazel commented that she had to console a peer in her first-year mentor group who was self-conscious about the fact that she came from a small town high school that only offered one AP class. She remembered that everyone was nervous as a first-year student, but she was especially conscious of what she perceived was a vastly different high school experience. Hazel reflected, “Academically speaking, the disadvantages are when finances have to be brought into it. Like if you have to work so that you can't study... the academic playing field is remarkably even until external factors come into the game.”

Joy added that being at Wellesley helped her to learn about her own privilege, but she also didn’t realize some students had so many opportunities before they arrived at Wellesley. She remarked that she didn’t have the chance to take advanced courses or even have access to a guidance counselor who could have helped her apply to colleges. It continued to baffle her how stark the inequalities are when students are all interacting in a diverse college community.
Other differences in life experiences prior to entering college also affect the college experience and decision making of students. On top of socioeconomic differences, students also mentioned the disparity of academic preparedness with which they entered college, based on the disparity of their high school educational experiences. Jennifer noted the varying levels of college preparedness, preparedness for living on one’s own, and dealing with stress and dealing with being in a competitive, high-pressure environment. Amy agreed that although students didn’t enter college on the same level of preparedness, everyone has their own areas they need to figure out throughout their college years. Chloe, who did not attend a high school in the US noted:

I expected myself to be one person, but it turns out I’m not. I’m academically motivated - it’s just part of the educational system that I grew up in. You have tests every month that's ranked for the entire grade and everyone can see your rank, so you better perform. That's how I came in - I was super intense about grades and very intense about studying, and studying for exams in particular. So when I came in I was trapped because I was totally unprepared socially. I was way too intense, way too tense, versus now I’m more chill.

Caryn spoke about the demographic makeup of her high school and realized that after growing up in a predominantly white, Christian and middle class town, she wanted to be in a diverse environment with peers who are vastly different than her who could challenge her opinions and views. Missy, who is a first generation college student who went to a public high school, added that she felt completely disadvantaged compared to a lot of her peers. Even though she realized she was coming from a first-generation background and accepted an invitation to be a part of the Wellesley Plus learning community, intended for students who come from
underresourced high schools, she still felt at a disadvantage without parents to talk to about her classes: “I wish Wellesley would have been just straight up and real about what we were going to feel and struggle…I think the thing that I really didn't expect about my decisions… is how much my experiences have influenced everything here.” She has found that her good friends have come from similar experiences, with backgrounds as Christian and low income. Though her background never really influenced any of her decisions made in high school, it has surprised her as to how decisions such as choosing a major or going abroad would make her think about the effect on her family and her future.

Mandy and Amy both shared experiences in which they felt uncomfortable and unwelcome because of their background. Mandy had to navigate not being a low-income student nor being extremely wealthy and feeling out of place amongst some peers. Amy felt like she didn’t belong in a cultural organization on campus because she was a continuing generation college student whose parents had advanced degrees while many other students of her similar ethnic background were first-generation students.

Where colleges can help is to understand the factors that drive students and the factors that are putting stress on them, which may critically affect the decisions they make during their college years. When speaking of the future, many students could not help but reflect on how far they have come from their backgrounds, while also acknowledging what more they felt needed to be done in order just to feel on a level playing field with other peers. Melena noted, “I need to do the best I can and do the schoolwork and build good connections so that I can set myself up for success later on.” Stacy chimed in, “For academic drive, getting a job when I graduate is of utmost importance, because I personally don't have the option of going home.” Nan, who did a Google internship for three summers and will be employed there next year admitted:
I chose computer science mainly because I'm a low-income student and I need the money. Plus, I do really enjoy it. And then, sociology ... I really became passionate about when I came here. Also, knowing that so much of the tech industry is men and seeing firsthand in internships, problems where engineers weren't thinking about people at all, it's just kind of maybe want to be more informed about the world and social structures and things on as an engineer. I was extremely stressed about it all through college because I really wanted to be able to support my family in a meaningful way. And also, myself. The concept of financial stability is like ‘Whoa!’ And that has been such a huge motivation. I honestly wasn't even aiming for anything extreme. I just want something stable.

She was also the same student who admitted that she once thought going to a professor’s office hours meant that one was admitting weakness. She actually had no idea that many of her peers were attending office hours and found it very helpful to understand the course material as well as to get to know the professor better. She also did understand how to obtain an internship and stumbled onto her Google internships by sheer luck by being in the right place at the right time. Going to an information session as a first-year student that wasn’t even open to first-years allowed her to speak to a recruiter who encouraged her to submit her resume for a summer opportunity. She didn’t know what a resume was so she went back to her dorm and used the internet to help her write her first resume. In her opinion, it was not a level playing field coming in during her first year because though she worked hard to obtain her internship, other students obtained their first internships through familial connections, which was a completely alien concept to her.
Others came to a realization that even though they still had strong goals for the future, their outlook may have changed and their priorities may have been altered based on the choices they were given in college. Jennifer said that she had a very clear plan for her future when she first entered college and spent the first two years pursuing interests motivated by this plan. However, the plan changed last year and she began to take classes out of sheer interest and didn’t push herself to the extent she did in her earlier years. In her future, she knows she has to pay off her student loans, but she realizes that, “As long as I’m doing something in the field that I love, that is what’s motivating me - the fact that I love public health and I want to do something that actually helps people.”

Caryn added that she doesn’t compare herself to her Wellesley friends because she knows they are all looking for different jobs. Mandy added that she is a history major because she really enjoys the subject, but that she is also passionate about being pre-med and wanted to take the opportunity in college to study something else and be a more well-rounded person. She realizes that medical school will teach her what she needs to know for a career in medicine, and she hopes that having a broad liberal arts background will make her even more attractive to medical schools.

Strong financial aid packaging to meet 100% of each student’s demonstrated need has also played a motivational factor in helping students take advantage of opportunities on campus. Kate mentioned her gratefulness for being able to have much of her undergraduate education paid for through need-based financial aid: “Just realizing that it's only four years and even though it might be tough sometimes, I've realized how much I've grown as a person…Wanting to support my parents later on…and realizing how important a Wellesley education is for that.”
Summary of Focus Group Findings

The majority of focus group respondents revealed that they had done a considerable amount of research on Wellesley College so that they knew that they would benefit from strong academic relationships with their professors and from being a part of the most powerful women’s network in the world, the Wellesley alumnae network. Students also agreed that the academic rigor, reputation, empowering community feel, and financial aid were main reasons students decided to matriculate at Wellesley.

Knowing that Wellesley College would provide students with a broad liberal arts education, focus group respondents also mentioned that they had expected to make choices from a large range of opportunities at their disposal. Some choices came from embracing the freedom of exploration, especially during the first year of college, and the majority of choices made by all respondents stemmed from genuine personal interest. However, factors such as previous educational experience, financial factors, career goals, and socioeconomic background were found to influence one’s academic choices during her college years. Given these factors, some students were more strategic and deliberate about their choices than others, especially those who felt that pre-existing differences in cultural capital between students could not be fully eradicated in a residential college environment.

It was apparent that due to the same factors that influenced their decision making during the past three years, such as academic preparation for college and socioeconomic background, students came in with different expectations of what a college education would do to prepare them for the next step in their lives. Understanding and managing such expectations is where colleges and universities can better set policies, procedures, and timelines to foster productive and fulfilling college experiences for all students and to allow for effective distribution of
resources. In summary, as seniors in college, all focus group respondents looked back on their undergraduate experience with satisfaction and agreement that their college experience was everything or more than they had expected from Wellesley College.
Chapter V: Discussion of the Research Findings

This was a descriptive mixed method study using a constructivist-interpretivist framework relying on the perspectives of the study’s participants, or a phenomenological approach. Data in the form of qualitative and quantitative form was analyzed in this study and was collected in multiple stages, through an online survey, focus groups, and obtaining an existing data set collected from a survey administered four years ago when the sample population was about to enter college.

In order to draw conclusions from the results of this mixed method study, this chapter will review the problem of practice and discuss implications for further research based on past literature and current findings with the sample population, students from Wellesley College’s Class of 2018. These students represent only a handful of current college students enrolled in one of over 5000 colleges and universities in the US. According to the Women’s College Coalition, Wellesley College is only one of 37 women’s colleges in the country, and it is one of a few hundred private institutions known as liberal arts colleges. This makes for a unique sample population but conclusions about student motivation can be extrapolated to college students who share similar responsibilities to make decisions that will affect their college experiences. There are universal influences that affect how students direct their own academic paths, and this study explores choices and the influences that drive students to make productive and fulfilling ones under the framework of Self-Determination Theory.

Revisiting the Problem of Practice

Previous research found that a majority of students at liberal arts colleges choose their undergraduate institution and major never intending that destination will be the final stop on their lifetime educational journey (Zhang, 2005). There is an assumption that upon matriculation,
colleges students should find themselves on a nearly level playing field with each other, with the same access to resources and information around them, while the new social environment offers equal access and autonomy to its students, and allows them to form their own networks and support systems (Xu, 2013). The better an institution is able to eradicate differences in preparation and in cultural capital between students by providing them equal access to resources and to allow peers and faculty to interact freely to create new social networks, the easier it may be for students to look ahead and shape their own views of their academic and professional paths.

This study found that socioeconomic differences between students created the biggest surprise for students upon matriculating in college. Though students recognized that they all came from different backgrounds, some did not realize the disparity of academic preparation, high school experience, and personal resources that they would see amongst their peers in college. Even in their senior year, some agreed that such differences still continued to create and perpetuate inequalities in their college experiences that could never be eradicated. However, students from across all backgrounds were found to be deliberate in certain decisions which they perceived would most affect their future paths after graduation.

Even in a liberal arts environment, where coursework is purposely not vocationally focused, some students made decisions based on the perceived future lucrative nature of choices made during their college experiences. Students who self-identified with being from low-income backgrounds mentioned future income as a driver of choices most often, even though liberal arts colleges seek to ensure that all majors and fields will equally prepare students for graduate school or the work force. Private institutions may also provide financial aid entirely based on financial need; thus, for certain low-income students who attend Wellesley, they mentioned that
Wellesley was their cheapest option for an undergraduate education, beating out even their public in-state university. At least one focus group participant has attended Wellesley for a zero parental contribution for all four years based on her family’s income. However, even with essentially a full scholarship for the entire cost of attendance for her undergraduate experience, she noted that her goal was to support her parents for their rest of their lives and that provided one of the strongest motivating factors in how she made choices during college.

**Discussion of Major Findings**

Given the four research questions explored in this study, four key themes emerged after analysis of the survey data and transcripts from five student focus groups:

- Access to the alumnae network, getting to know professors well, financial aid, and gaining self-assurance, confidence, and well-roundedness were the top reasons cited by students in choosing to matriculate at Wellesley.

- At a liberal arts institution, students expected to take a range of courses across the liberal arts spectrum and did not disappoint themselves by taking advantage of opportunities they had expected to have in college.

- Students are driven by personal interest when making choices about their academic and co-curricular experience but there is a limit to completely free exploration of opportunities – workload, time, grades, and the impact on the future are taken into consideration. Thus, choices made out of personal interest may still be strategic and deliberate and friends or internet resources are usually the first to be consulted for information or advice.

- Differences in socioeconomic backgrounds are magnified in a college community and exacerbates an already uneven playing field when students enter college, which
affects the college experience and decision making of students more than other differences.

**Access to the alumnae network, getting to know professors well, financial aid, and gaining self-assurance, confidence, and well-roundedness were common reasons cited by students in choosing to matriculate at Wellesley.** These reasons demonstrated significant research done by prospective college students prior to matriculation to know not only what they would experience during their undergraduate years, but also the benefits after graduation. The extent to which students changed the consideration of their network of people and connections made during college as a measure of success did not yield a strong relationship when measured at 2014 and then again at 2018 (chi-square = 3.6, df = 6, p = .731). Similarly, the extent to which their opinions about feedback from professors was a measure of success also was not statistically significant (chi-square = 7.09, df = 8, p = .529). In other words, students already felt that the network of people and connections made during college was an important expectation and did not change their opinion of that four years later. Similarly, the influence of professors expected matched what they actually experienced.

First-generation students also consistently agreed that both the skills gained for employment and the network gained from being a part of the Wellesley community were measures of college success. There was consistency amongst focus group respondents that this particular college community encouraged confidence building, personal and academic growth, and empowerment of each other in a high-achieving and affordable environment.

**Students expected to take a range of courses across the liberal arts spectrum and did not disappoint themselves by taking advantage of opportunities they had expected to have in college.** Students who chose this particular liberal arts institution also knew of its distribution
requirements and the expectation that they would have to choose courses outside of their major. Many indicated they would have taken their distribution courses anyway and did not find them to be much of a burden, given many choices within each distribution category. Shadow grading was made available for the first time in Wellesley’s history to this class when they entered as first-year students and the students found that having a safety net of pass/no credit grades in their first semester was overall a positive addition to their first-year experience.

In the Qualtrics survey, students were asked to count the number of courses taken outside of their predominant area of study over the course of their undergraduate years, whether it be the humanities, social sciences, and STEM, if they did not major in that area. Using chi-square tests to compare one’s 2014 assessment of importance of getting broad liberal arts exposure to the number of courses ultimately completed in non-major area fields, it is interesting to note that at a 90% confidence level, it was statistically significant that for non-STEM majors, there was a relationship between their belief in the importance of a liberal arts education and the number of STEM classes taken as electives. However, for non-social science majors and non-humanities majors, there was no significant relationship between a belief in the importance of a broad liberal arts education and the number classes taken as electives.

Students were also asked to what extent they took advantage of study abroad opportunities. Using two independent variables from the 2014 ESS, the importance of Wellesley being able to provide a global perspective and the importance of being able to interact with people of diverse backgrounds, it was found that the relationship was statistically significant, indicating that the more important students found those two independent variable factors at the start of their college career predicted the extent to which they would pursue study abroad during their college years. Overall, there was a relationship between how important students wished for
Wellesley to provide them with a global perspective and the extent to which they took advantage of study abroad.

Students are driven by personal interest but there is a limit to completely free exploration of opportunities; thus, choices made out of personal interest may still be strategic and deliberate and friends or the internet are usually the first to be consulted for information or advice. Genuine interest in the subject matter was noted as the overwhelming reason as to why students chose their major. However, knowing that a major could lead to graduate school opportunities and/or a lucrative first job were also cited as reasons why a student leaned towards a particular major in the first place. All first-generation students reported studying abroad, obtaining research opportunities with faculty members, and taking advantage of an internship opportunity. All first-generation students all agreed that their futures were in their own hands alone, and that there would be unlimited opportunities available to them after graduation. They were also most confident in knowing that they were free to do whatever they wanted and were most optimistic about having the most choices for the rest of the lives, while all admitting to being strategic about choices made at Wellesley. Parental education had no correlation on the anticipated plan for any students’ first year after graduation.

However, overall workload, time commitments, and grades were cited as reasons students had to be strategic about their academic choices over time. Realizing that graduate schools and employers continued to require strong transcripts made some students fearful of taking large risks, thus students found that this affected their subsequent choices of courses and the amount of time they chose to stay on campus or study on another campus. Interestingly, at a confidence level of 95%, a significant difference was found in the responses of students from 2014 to 2018 who considered grades to be an important measure of success. This was a negative change,
meaning that students placed a higher value on grades as a measure of success before they started college than when they were seniors. However, students’ expectations that a college education would give them skills to enter the work force did not change from the time they entered college to when they were seniors.

Students in 2014 were asked to assess their preparedness to get along socially with others in college. For every increased step on the Likert scale that assessed confidence in their academic and social preparedness, there was a negative drop in current GPA. One’s self-assessment of preparedness to succeed socially was shown to be a good predictor of GPA while the assessment of one’s academic preparedness for college was less significant a relationship.

While personal interest played a significant role in the academic choices students made, the influence of advice from peers and alumnae also played a role in opening opportunities for students, especially for those who perceived an information gap between what the College was telling them versus what they could just learn from a peer. Comments expressed by students who would consult other peers before anyone else showed that they trusted friends and other college students of their same age before they trusted information from the College itself, or what little of it they could find.

**Differences in socioeconomic backgrounds are magnified in a college community and exacerbates an already uneven playing field when students enter college, which affects the college experience and decision making of students more than other differences.** From the focus group discussions, a recurring observation was that socioeconomic differences between students was much more pronounced in college than in high school. Some students did not realize what opportunities other students had before they even arrived at college which resulted in a disparity of academic preparedness. The inequalities continued to be stark when students
interacted together in a diverse college community, especially when noticing how students
differed in the ways they handled independent living, especially in a high-achieving environment
that can become stressful. This is an area in which professors and student service staff may be
able to further assist in the acclimation of students to living and learning from one another.

**Discussion of Findings in Relation to the Theoretical Framework**

Factors such as personal interest, curiosity, and initiative all contribute to how motivation
leads to choices made during one’s college years. Self-Determination Theory was deemed a good
fit to explore the research questions in this study, to look closer at the motivating factors behind
why and how college students made the choices they did.

Self-Determination Theory is grounded in the belief that intrinsic motivation more
directly affects one’s desire to learn, and is fostered from the need for individuals to feel
autonomous, competent, and related to others (Guiffrida et al., 2013). Citing a community that
boosts the confidence and empowerment of women as one of the main reasons students decided
to matriculate at Wellesley College is consistent with a student body eager to embrace autonomy,
competence, and relatedness. Many students spoke of how they became increasingly confident in
knowing they were able to make the best choices for themselves, allowing them to see for
themselves their ability to direct their own decision making and embrace the exploration
centred by the College, while also being able to identify with others in their same age and
peer group during this critical time of emerging adulthood. Having strong academic relationships
with mentors, faculty members and alumnae also contributed to the relatedness and respect
accorded to and from others in the community. Based on the fact that 93% percent of Qualtrics
survey respondents agreed that how much they felt they have learned was a good indicator of
college success, and that the same percentage noted that the strength of their network of friends,
faculty, mentors, and alumnae was also an indicator of a successful Wellesley experience, this confirmed the high level of intrinsic motivation expressed by the focus group participants.

Even though 93% of survey respondents also agreed that skills gained at Wellesley were believed to increase employment and/or graduate school opportunities, Self-Determination Theory also posits that individuals may also internalize external influences. It was found that students exhibited certain levels of extrinsic motivation when they mentioned incentives such as making a lucrative salary after college, or getting in a graduate or professional program as reasons why they chose certain classes or made certain choices over how they wanted to spend their time during college. At the same time, level of parental education could also be considered an external influence. The fact that all first-generation students surveyed reported studying abroad, obtaining research opportunities with faculty members, and taking advantage of an internship opportunity showed that they internalized the fact that they were the first in their families to go to college and took advantage of many opportunities provided to them while in college. Their parents did not have the opportunity to have any of these academic experiences themselves. The fact that all first-generation students also agreed that their futures were in their own hands alone, and that there would be unlimited opportunities available to them after graduation demonstrated autonomy and confidence, while all admitting to being strategic about choices made at Wellesley.

According to Self-Determination Theory, behaviors are defined along a spectrum, and Wellesley students were found to make choices at varying points on the spectrum. It was found that one’s socioeconomic and educational background did contribute to certain motivating factors behind their decision making, and there was variation among students as to how much they internalized them to make them their own self-motivating factors. It was found that all
students realized that even externally motivating factors contributed to their own behaviors to be rooted in identified regulation or integrated regulation motivation. This is congruent with the theory that recognizes internalization and alignment of external influences to one’s own value structure thus allowing externally motivated choices to still be able to fulfill one’s actual needs.

Full integration and internalization of external influences to be valued as one’s own is rare among young adults, but college students with high levels of intrinsic motivation were found to most likely persist, and in this study, it was shown that this was consistent with the continual mention of hard work, perseverance, and stress experienced in a high-achieving community amongst peers who were highly competitive, mostly with themselves. The better able a college can foster a community feel, through connections between its students and faculty and its resourceful departments and services, the better a college is able to foster one’s love and commitment to learning by supporting strong intrinsic motivating factors, autonomy, confidence, and relatedness.

**Discussion of Findings in Relation to the Literature Review**

It has been noted that much existing research on emerging adulthood has focused on the American majority population, largely Caucasian and middle-class. In this study, even a small sample of survey respondents and focus group respondents yielded a broader demographic in terms of race, socioeconomic background and level of parental education. As colleges and universities in the United States continue to strive for diverse student bodies, there will continue to be a need to study the impact a college education has on first-generation college students, minority students, and students from across the entire socioeconomic spectrum, and the impact they have on the experience a college wants to be able to promise.
This study confirmed that during the four years spent as an undergraduate student in college, students are faced with a tremendous amount of opportunity and choices specifically made available for the age demographic of approximately 18-22 for traditional-aged college students, aligning with the literature reviewed on college as a life choice for emerging adults. At an residential college away from home in a demographically diverse community perhaps never previously encountered, there is expectation that students will embrace the demographically denseness of perspectives, newfound independence, and responsibilities of making decisions expected during this experience.

Though college students do not view themselves as either adolescents or adults, Anrett (1998) found that making independent decisions and accepting responsibility were the top two criteria cited by this age group as indicative of a complete transition to adulthood. Being on a residential college campus gives students the opportunity to develop decision making skills in order for them to have fulfilling college experiences. This study also confirmed that students at liberal arts colleges did find frequent interaction with professors and a wide range of options for fields of study as an integral part of their college experience. Interest-major congruence, as defined by Allen and Robbins (2010) and DeMarie and Aloise-Young (2003), was found to play a pivotal role in student motivation to acquire knowledge. Remarkably, students surveyed and interviewed in the study demonstrated a wide range of interests, validating that the decision to attend a liberal arts college was a good fit for their academic interests. However, instead of demonstrating indecisive “waffling”, these students made deliberate and well-reasoned decisions when they changed plans, demonstrating critical thinking skills that the liberal arts are meant to teach.
A Wellesley degree seemed to carry significant clout and the power of the alumnae network was not lost on the students in this study. Many indicated that this undergraduate institution would not be the final stop of their educational journey, but saw graduate school as an intended option in the near future. This confirms previous research that asserted students who study the liberal arts are most likely to attend graduate school (Eide & Waehrer, 1998; Zhang, 2005). Some students already recognized the fact that by studying at a liberal arts institution, they invested in a set of transferable skills that could be applicable across many future jobs. Though some previous research would argue that liberal arts colleges perpetuate the highest rates of educational mismatch for the job market, students in this study demonstrated that having a purpose in life affected one’s motivations and goals for their future. Many spoke of the desire to be a well-rounded educated person, recognizing that they were motivated by their ability to picture a range of realistic options that would come their way in terms of future opportunities, confirming Cross and Markus’ (1991) argument that individuals who can better picture different “possible selves” are more likely to have positive motivations for their current choices in front of them. At a highly selective institution such as Wellesley, it was important to note that students didn’t really compare themselves with others or find that they were competing with each other. There was general recognition that they were all headed for different jobs with different goals, even though they all felt a collective pressure to push themselves as individual high-achievers.

Guiffida et al. (2013) had concluded that students who don’t have a strong sense of wanting to connect with faculty, advisors, and peers, through the taking advantage of support structures and resources available on a college campus have low intrinsic motivation and are more likely to be apathetic about their academic choices and fall through the cracks of academic success. In studying a student population such as the one at Wellesley College, the researcher
observed both the inverse and contrapositive effect. Based on this motivation and the influence of external factors that have appeared to have been internalized, it was noted that student decision making was based on interest, curiosity, initiative, and self-regulated and self-determined behaviors. Though Holland, Astin, and Kuhlen (1962) found no correlation between one’s high school transcript and accomplishments during college, Wellesley students did consider how well they did in a subject in high school to also affect their consideration of a college major. No student indicated that any of her decisions were fully non-self-determined, or completely driven by extrinsic motivation. Instead, the students spoke of decisions based on life goals that did fall into all four orientations defined by Hill et al. (2010): prosocial, financial, creative, and personal recognition. Students spoke of helping others, supporting family members through financial stability, using creativity in their problem solving and critical thinking tasks, and continuing to desire a sense of respect and relatedness to others. Hill et al. (2010) found that as students ready themselves for graduating from college, they are positively oriented across all four purpose orientations and this was confirmed in this study as students demonstrated high self-efficacy and confidence in their final year of college. Where interests, confidence, expectations, and choices align, Self-Determination Theory and motivation along a spectrum can ground one’s values and choices, especially during emerging adulthood.

**Significance of the Study**

The results of this mixed methods study has shown that at a residential college such as Wellesley, whose mission is “to educate young women who will make a difference in the world,” students make academic choices based on a high level of intrinsic motivation fostered by the three psychological needs of autonomy, competence, and relatedness being fulfilled while on campus. These research findings have been intended to contribute to existing literature on
choices and opportunities faced by college students in the age demographic defined as emerging adulthood, focusing on decisions that affect the academic experience on a liberal arts college campus.

Though colleges offer wide access to resources and information around them, students may find themselves in a four year residential experience that never fully feels like the playing field has been leveled, especially given educational and socioeconomic disparities based on the backgrounds of students before they enter college together. Though peers and faculty were found to interact freely to create academic and social networks seen as valuable to the student and alumnae experience, students were found to be strategic in varying ways, and were affected by their pre-college backgrounds more than they had realized they would be during their time on a residential campus.

Knowing more about this phenomenon helps admission offices in the recruitment of an increasingly diverse pool of prospective students, including those who once perceived certain institutions as impractical and inaccessible because of perceived net cost, or the lack of money-earning potential of some academic programs. Advising and career services offices would benefit from knowing the extent to which students make changes about their academic options and how they perceive future opportunities and their readiness for post-graduation endeavors. Knowing about the motivating factors behind how and why students make certain academic decisions can help some administrative offices better execute special programming, especially in terms of staffing, how to disseminate information, and when to set deadlines.

Lastly, by delving more into the effect of financial factors and the ultimate choices made by college students, financial aid, student employment, and student life offices could understand more about the motivations and pressures behind how students feel like they should, or have to
build, their undergraduate experiences. By understand influences and pressures that some
students feel even after receiving need-based grants meant to open opportunities to students who
possibly would have never considered attending liberal arts institutions in the first place, college
administrators can be more aware of the resources they need to continue providing after students
are brought to campus in order to enhance everyone’s overall undergraduate student experience.

**Limitations of the Study**

The population used in this study was limited to students at one single undergraduate
institution, Wellesley College in Wellesley, MA. The students who were invited to complete an
online survey and to participate in a focus group are currently still in their senior year of college
at this highly selective fully residential all-women’s liberal arts college that will confer Bachelor
of Arts degrees on these students in May, 2018. Wellesley College’s distinctive mission to
“educate women who will make a difference in the world” may be appealing to students from
various backgrounds for many different reasons. Many students were found to have gravitated
towards the appeal of a women’s college being able to empower and further boost the confidence
of these students who had already demonstrated independent thinking, grit, strength of
conviction, and gumption in high school, on top of outstanding academic achievement. Others
may have recognized the appeal of shadow grading during the first semester of college and chose
to attend Wellesley for that experience. Thus, this particular self-selected population may already
have had higher than average baseline expectations of themselves as well as of their college
experiences throughout their undergraduate years.

An assumption is that when students choose a college to attend, they have done enough
research to understand what may be unique to that particular institution which contributes to the
reasons why they would want to matriculate there. Ultimately, this assumption may not be
entirely true for all students, especially those who didn’t have any other college choice or those who could not afford any other option. However, all students in this study actively chose Wellesley, so given the self-selective and the highly competitive nature of the applicant pool and the students who ultimately choose to matriculate, this study’s small sample size represents only a tiny segment of the general US college going population. This class of students was also the first to experience the practice of shadow grading, or receiving only pass/no credit grades during their first semester of college, a relatively unique practice among Wellesley’s peer institutions. Shadow grading is still in a pilot stage, to be reevaluated again by the faculty in 2020 for its effectiveness and impact on the Wellesley college experience.

There are fewer than 40 women’s colleges that remain active in the US, the majority of which are private institutions. Liberal arts colleges also constitute a group of only several hundred institutions aimed at teaching breadth over placing students on a vocational or pre-professional track of study. The small college environment, small class sizes, and impressively low faculty-student ratios also make liberal arts colleges unique among the thousands of college and university options available in the US today.

The sample size of survey respondents and focus group participants is thus an even smaller percentage of the students currently enrolled at Wellesley College. Previous literature focused on emerging adulthood in the American majority population, largely Caucasian and middle-class. Yet, the sample of students in this study does represent a diverse array of geographic, socioeconomic, and ethnic backgrounds, as well as a range of academic and co-curricular interests. It is the researcher’s hope that results of this study can be extrapolated to student populations at larger and different types of institutions where mission and practice and constantly scrutinized when trying to provide the most fulfilling college experience as possible.
Implications for Practice

Though this study resulted in a small sample size, the clout of a Wellesley College degree and the power of the network of peers, faculty, mentors, and alumnae to be gained from attending this institution was not lost on the students in this study. Attractive financial aid packages also played a role in attracting students to matriculate and then eased the financial burden for them and their families. Many also indicated that Wellesley would not be the last stop of their educational journey. This has great implications for the office of admission, financial aid, and other administrative offices that already are active in their support of the student experience at Wellesley College. For other institutions, it is important to consider the critical roles that the many offices on a residential campus play in contributing to students’ feelings of autonomy, empowerment, and inclusion and their impact on their academic decision making. These include, but are not limited to, offices of career services, student employment, international study, academic support services, and alumni offices.

Though any college will claim to offer wide access to resources and information, students may unfortunately still find themselves in a four-year residential experience that never fully feels like the playing field has been leveled given disparities created before the students came together. There may be a benefit for a college to acknowledge that such differences indeed exist, and that one’s life and educational background prior to college is a positive contributing factor to the diversity of the student body. No student should have to enter college feeling embarrassed or already behind her peers in preparation or expectations. This has implications for orientation activities, advising services, affinity groups such as a first generation network of faculty and students, and student groups such as cultural, religious, and ethnic groups.
There is a need for all college campuses to be proactive in reaching out to its students to gain their trust and their attention to campus programming designed as effective and efficient ways to disseminate information to students. For an institution to be regarded as successful in disseminating information, such information must be transparent, accessible, timely, and appear genuine in its support of its students. This is consistent with Self-Determination Theory and the fact that students want to feel a sense of autonomy, competence, and relatedness in their college community. The more they feel that they belong, the more likely they will take advantage of opportunities and make the best of their college experiences.

Students who participated in this study expressed appreciation for being able to share their experiences with the researcher, and also indicated that they would have welcomed the chance to have been able to participate in focus group-like discussions with administrators about their college experiences during their four years on campus, instead of waiting until an exit survey to be administered just prior to graduation. For some study participants, just being able to hear that some peers had similar thoughts and experiences made them feel less alone and more connected with the overall shared residential college experience.

Student needs have great implications for the thoughtful distribution of financial and staff resources that will vary based on the demands of each campus community. Allowing students to have outlets to share and express these needs may not only help a college community be able to continually adapt and change with new generations of students, but increased dialogue by students may indeed be comforting and empowering to them as they progress into adulthood.

**Implications for Further Research**

The results of this study open great opportunities to further explore Self-Determination Theory and life choices during one’s college years across country and cultural lines. There may
be cultural, religious, and ethnic differences in the attitudes towards life meaning and purpose, and how an undergraduate college experience plays into one’s life path. Extended study of the diversity of demographic groups just in the United States will most certainly contribute to existing literature already exploring differences in life span development. Lastly, as higher education and the working world continue to evolve symbiotically with a constantly changing world economy, further research can continue how decision making in one’s college years leads to one’s place in a growing “gig” economy where views of traditional jobs are continually changing. Future generations of workers may continue to demand more autonomy and flexibility in their work, more control over their own time, and more opportunity to make a living from hobbies and interests on which they genuinely want to spend their time and energy. Not only may this change the academic fields of study and co-curricular opportunities offered by colleges and universities, this may result in drastically different views of employability, earning potential, perceived college reputation, and occupational paths in the very near future, which will no doubt affect the motivation and decision making of emerging adults anticipating a different type of future than that even experienced by their parents.

This study has only scratched the surface of understanding the motivations and drivers of decision making in emerging adults while they are students at a liberal arts institution. As student bodies across the country become increasingly diverse, bringing together students of varying educational and socioeconomic backgrounds in residential settings, colleges will serve as new homes for a wider mix of students for whom a residential academic environment may be a completely new and alien experience that will play a crucial role in their personal development as emerging adults. This has great implications on the responsibility of colleges and universities for this particular age demographic in preparing them to enter a working world filled with greater
exposure to a diversity of people, thoughts, and ideas and the existence of even more choices to make for life. By understanding how background factors affect decision making and motivation of students while they are in college, institutions of higher learning should better be able to assess how they will be able to provide a meaningful and worthwhile experience to students during this critical transitional period from adolescence to adulthood. Knowing more about certain stressors felt by students in this age demographic, no matter what their backgrounds, has great implications on the allocation of resources especially in areas such as student and residential life, mental health, career services, and student financial services, all critical resources to one’s college experience.

As colleges compete with each other for students, those who best are able to enhance the student experience will remain most competitive. Further research can also involve interviewing students a few years after graduating from college in order to compare further reflections on cultural capital gained from their college experiences and their feelings about motivation and decision making after they have fully accepted and embraced adulthood. This study has shown that where interests, confidence, expectations, and choices align, self-efficacy and self-determination can positively ground one’s values and choices throughout one’s lifetime. Continued research through longitudinal studies, which allows for time to pass to account for changes in interests and self-determination levels, may have great implications for post-college career and life counseling.
References


using self-determination theory to consider student motivation and learner empowerment.


composition and women's choices of college majors. *Industrial and Labor Relations 

patterns and their implications for personal and social risks. *Journal of 
Adolescence, 18*(2), 129.

Clausen, J., & Gilens, A. (1990). Personality and labor force participation across the life course: 


unemployment as barriers to job search self-efficacy: A test of social cognitive career 

college seniors as a function of gender, type of major, and sex-role identification. *Journal 
of College Student Development, 37*(3), 297-308.


Trusty, J., Robinson, C. R., Plata, M., & Ng, K. (2000). Effects of gender, socioeconomic status,


Appendix A

Invitation to Participate in Online Survey (Electronic Invitation)

To: Members of the Wellesley College Class of 2018

From: Grace S. Cheng, Doctoral student in the EdD Program at Northeastern University

Subject: REQUEST to participate in research on decision making during your undergraduate years at Wellesley

Dear Class of 2018,

As a doctoral student in the EdD Program at Northeastern, I would like to invite you to participate in a web-based online survey as part of my doctoral thesis work at Northeastern University.

Though I do work at Wellesley, I am making this request as a doctoral student at Northeastern University in the final stage of my own research. For my doctoral study, I am asking if you would participate in this study because you are now seniors and have faced many decisions that have made your Wellesley experience what it has been so far. The purpose of my research study is to better understand the choices you have made, including the choice to attend Wellesley, and how you have made academic and co-curricular choices during your undergraduate years.

This online survey should take no more than 15 minutes to complete. Please know that your participation is strictly voluntary and your responses can be submitted completely anonymously. With that said, I do intend to do analysis of these responses in relation to the Entering Student Survey your class took in the fall of 2014 upon entering the college. In addition, at the very end of the survey you will have a choice to submit your responses completely anonymously OR, if you should choose to do so, submit with your name so that I might be able to more directly analyze student responses between those given in the 2014 survey and the survey I am asking you to complete. Of course, this is completely up to you. I will have no way to know who has completed the survey, unless you decide to volunteer for the focus group.

If you are interested in taking this survey, simply respond to this invitation by going to the following web address: www.qualtrics.samplelink.com.

Thank you for considering my request and I hope you will complete the online survey. Your participation in this study is very important to obtaining comprehensive data from the Class of 2018. If you should have any questions, please contact me through my Northeastern University student email address at cheng.g@husky.neu.edu.

Thank you for your time,
Grace S. Cheng
Candidate for EdD in Higher Education Administration
Appendix B

**Invitation to Participate in Student Focus Group Session (Electronic Invitation)**

To: Members of the Wellesley College Class of 2018

From: Grace S. Cheng, Doctoral student in the EdD Program at Northeastern University

Subject: REQUEST to participate in a follow-up focus group to discuss decision making during your undergraduate years at Wellesley

Based on your willingness to be chosen to participate in the next phase of my doctoral research, I am writing to invite you to participate in a student focus group of 5-7 people to discuss further your experience with decision making during your undergraduate years at Wellesley College. The purpose of my research study is to better understand the choices you have made, including the choice to attend Wellesley, and how you have made academic and co-curricular choices during your undergraduate years.

Your participation is strictly voluntary and your comments will be kept confidential, transcribed with no identification to you. At the start of the focus group, I will review your rights as a participant and ask you to sign a consent form. I’ve attached a copy for your reference.

If you are interested, simply use the Doodle poll link below and provide me with the following information: days and times you could participate and best way to communicate with you. A focus group session will occur on a day and time convenient for the participants and last no more than 90 minutes in the Lulu Chow Wang Student Center.

<Insert Doodle link here>

Upon signing the consent form and completing a focus group session, you will be given a $20 gift card for your participation in the focus group phase of my research. Pizza and drinks will also be provided.

Thank you for considering my request. If you have any questions, please let me know via my Northeastern University student email address: cheng.g@husky.neu.edu. Emails sent to my Wellesley email address must be deleted with no response per Northeastern University IRB regulations.

If you do not complete the Doodle poll, you will not be contacted again regarding this research.

Best,
Grace S. Cheng
Candidate for EdD in Higher Education Administration
Appendix C

Unsigned Consent Form for Web-Based Online Surveys

Name of Investigator(s): Principal Investigator – Dr. Chris Unger; Student Researcher – Grace S. Cheng
Title of Project: Academic Decision Making in a Liberal Arts College Setting

Request to Participate in a Web-based Online Survey

We would like to invite you to participate in a web-based online survey being sent to the entire Wellesley College Class of 2018. The survey is part of a research study whose purpose is to explore many decisions that college students are expected to make during their college years and the influences that drive them in trying to craft productive and fulfilling experiences during their time at Wellesley College.

You may have filled out the Entering Student Survey in the fall of 2014. This survey will attempt to gather data that can connect to data collected at the beginning of your first-year.

The decision to participate in this research project is voluntary. You do not have to participate and you can refuse to answer any question. Even if you begin the web-based online survey, you can stop at any time.

There are no foreseeable risks or discomforts to you for taking part in this study.

There are no direct benefits to you from participating in this study. However, your responses may help us learn more about a series of decisions made by women during young adulthood, including the choice to attend Wellesley College and how Wellesley students have made academic and co-curricular choices during their undergraduate years. Choices such as picking a major, deciding whether to study abroad, pursue an internship, or participate in a club, not only affect one’s overall college experience, but constitute a common set of decisions all college students must make.

You will not be paid for your participation in this study.

Your part in this study will be handled in a confidential manner. Because of the nature of web based surveys, it is possible that respondents could be identified by the IP address or other electronic record associated with the response. Any reports or publications based on this research will use only group data and will not identify you as being affiliated with this project should you decide not to provide anonymous consent.

If you have any questions regarding electronic privacy, please feel free to contact Mark Nardone, NU’s Director of Information Security via phone at 617-373-7901, or via email at privacy@neu.edu.

If you have any questions about this study, please feel free to contact Grace S. Cheng, Director of Admission at Wellesley College at cheng.g@husky.neu.edu or 781-283-2309, the
person mainly responsible for the research. You can also contact Professor Chris Unger, Principal Investigator, at c.unger@northeastern.edu, or 857-272-8941.

If you have any questions regarding your rights as a research participant, please contact Nan C. Regina, Director, Human Subject Research Protection, Mail Stop: 560-177, 360 Huntington Avenue, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: n.regina@northeastern.edu. You may call anonymously if you wish.

This study has been reviewed and approved by the Northeastern University Institutional Review Board (# xx-xx- xx). [protocol # will be provided to you by the HSRP office].

By clicking on the “Next” button and continuing with the survey, you freely consent to participate in this survey.

You may print out a copy of this consent form for your records.

Thank you for your time.

Grace S. Cheng
Doctoral Candidate in Education, Northeastern University

“Next”
Appendix D

Decision-Making Survey of Wellesley’s Class of 2018

Online Survey

Q1 *Are you a US citizen or Permanent Resident?
   • Yes (1)
   • No (2)

Q2 Did you graduate from a high school in the US?
   • Yes (1)
   • No (2)

Q3 Are you or your siblings in the first generation of your family to pursue a 4-year college degree?
   • Yes (1)
   • No (2)

Q4 What is the highest level of education completed by a parent/legal guardian?
   • Less than high school (1)
   • High school graduate (2)
   • Some college (3)
   • 2 year degree (4)
   • 4 year degree (5)
   • Masters degree (6)
   • Professional degree (e.g. MD, MBA, JD) (7)
   • Doctorate (8)
Q5 Please list the occupation(s) of your parent(s)/legal guardian(s):
- Parent 1/Legal Guardian 1 (1)
- Parent 2/Legal Guardian 2 (2)
- Additional Parent/Legal Guardian (3)
- Additional Parent/Legal Guardian (4)

Q6 Are you Hispanic/Latina?
- Yes (1)
- No (2)

Q7 Which ethnicity best describes you? (Check all that apply)
  B. White (1)
  C. Black or African American (2)
  D. American Indian or Alaska Native (3)
  E. Asian (4)
  F. Native Hawaiian or Pacific Islander (5)
  G. Other (6)

Q8 Did you take a gap year between graduating from high school and entering college?
- Yes (1)
- No (2)

Q9 Were you accepted to Wellesley under Early Decision?
- Yes (1)
- No (2)
Q10 Were you a transfer student to Wellesley?
• Yes (1)
• No (2)

Q11 Are you receiving need-based financial aid?
• Yes (1)
• No (2)
• Don't Know (3)

Display This Question:
Are you receiving need-based financial aid? If Yes Is Selected

Q12 If you receive need-based aid, approximately how much aid are you receiving for the 2017-18 academic year?

Q13 If you work a part-time job (on- or off-campus), approximately how many hours a week do you work?

Q14 Briefly explain why you chose to enroll at Wellesley.
Q15 What is your major? (If you do not have a second major, please leave Major 2 blank.)

- Major 1 (1) ________________________________________________
- Major 2 (2) ________________________________________________

Q16 As a non-major, how many classes have you taken in the humanities? (Do not answer if you are majoring in the humanities)

Q17 As a non-major, how many classes have you taken in the social sciences? (Do not answer if your major is in the social sciences)

Q18 As a non-major, how many classes have you taken in the sciences? (Do not answer if your major is in a STEM field)

Q19 How many times did you switch your major from the first time you declared one? (Enter 0 if you did not ever switch majors.)

Skip To: Q21 If Q19 = 0
Q20 If you switched majors, why?
Q21 To what extent did the following considerations affect your choice of major(s)?

<table>
<thead>
<tr>
<th></th>
<th>Not a factor at all (1)</th>
<th>This may be a factor but it didn't affect my decision (2)</th>
<th>This may be a factor and it helped me lean towards my decision (3)</th>
<th>Very much a factor (4)</th>
<th>This is the main reason I chose my major(s) (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following a path to a lucrative future (1)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Following parental/familial/external advice and influence (2)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Following a belief that it will help me gain admission into graduate school or obtain a job (3)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>I was good at this field in high school (4)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Following a personal path of exploration and interest in the subject matter (5)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Q22 To what extent have you taken advantage of the following opportunities during your time at Wellesley?

<table>
<thead>
<tr>
<th>I was not interested in this opportunity (1)</th>
<th>I have not taken advantage of this opportunity but I wish I did (2)</th>
<th>I have taken advantage of this opportunity and wish I did more (3)</th>
<th>I have taken advantage of this opportunity to the extent I envisioned for myself (4)</th>
<th>I have taken advantage of this opportunity above and beyond my expectations (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-registration with peer institutions (e.g. MIT, Babson, Olin, etc.) (1)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Experience</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study abroad (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Career Education (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic engagement or service, not as part of a course (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction with faculty on research outside of class (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Took classes I never thought I would take because of shadow grading (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning and interacting with peers studying in other fields (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extracurricular activities in fields unrelated to my major(s) (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having an internship (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q23 If you have taken a class(es) on another domestic campus, where and why did you do so?
• Where? (1) ________________________________________________
• What semester(s)/year(s)? (2) ____________________________
• Why? (3) ________________________________________________

Q24 If you studied/interned abroad, where and why did you do so? (Include summer international experience and separate with commas if more than one experience)
• Where? (1) ________________________________________________
• What semester(s)/year(s)? (2) ____________________________
• Why? (3) ________________________________________________
Q25 If you have not already completed your distribution requirements (9 units), which distribution field(s) do you still need to complete?
- I have already completed my distribution requirements (1)
- Language and Literature and Visual Arts (2)
- Music (3)
- Theater, Film, and Video (4)
- Social and Behavioral Analysis (5)
- Epistemology and Cognition (6)
- Religion, Ethics, and Moral Philosophy (7)
- Historical Studies (8)
- Natural Science (9)
- Physical Science (10)
- Mathematical Modeling and Problem Solving (11)

Skip To: Q27 If Q25 = I have already completed my distribution requirements (1)
Q26 To what extent is the remaining distribution field(s) left still to complete due to the following?

<table>
<thead>
<tr>
<th>Avoiding the subject(s) until senior year (1)</th>
<th>Not applicable (1)</th>
<th>Not really a factor (2)</th>
<th>Somewhat a factor (3)</th>
<th>Mostly a factor in my decision to hold off on this requirement (4)</th>
<th>This is a main reason I have not finished this requirement (5)</th>
<th>This is the main reason I have not finished this requirement (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would have taken it earlier but it/they didn't fit in my schedule (2)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>I would have taken it earlier but it/they wasn't offered until this year (3)</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
Q27 To what extent have you found distribution classes valuable to your Wellesley education?

Choose One:  
(1) They have been a waste of time  
(2) They have hampered the flexibility I wished for in my academic choices  
(3) They have neither enhanced nor hampered my Wellesley educational experience  
(4) I have appreciated some of the distribution classes I have chosen  
(5) They have all been an integral part of my Wellesley education

Q28 What is your current GPA?
Q29 To what extent do you believe in the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Completely agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My future is in my hands alone.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>The world is my oyster. There will be unlimited opportunities available to me as a Wellesley graduate.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>I feel pretty free to do what I want to do in my life.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>I have real choice in what I have to do in my life.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>I have been very intentional and strategic in my academic and co-curricular choices because I know they will affect my future.</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Q30 To what extent are these factors true?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Completely disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Completely agree (5)</th>
</tr>
</thead>
</table>
My high school experience and background affect what I am doing at Wellesley. (1)

I was aware of what a liberal arts education at Wellesley would teach me (see Wellesley's Mission and Values). (2)

Knowledge and support of Wellesley's mission and values affected my decision to enroll at Wellesley. (3)

My choices made at Wellesley have aligned with my desire to develop liberal arts skills (curiosity, willingness to interrogate closely and argue cogently and judge fairly,
ethical awareness, purposeful involvement, etc.) (4)

I feel liberal arts skills are valuable in the real world after college. (5)

I am prepared for a coed world after graduation armed with these liberal arts skills. (6)

Participating in one or more clubs/co-curricular activities/jobs was valuable to my Wellesley experience. (7)

Participating in clubs/co-curricular activities/jobs was completely my own decision with no external influence. (8)
### Q31 How are you measuring your success in college?

<table>
<thead>
<tr>
<th>Metric</th>
<th>Completely disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Completely agree (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My grades. (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much I feel I have learned. (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How much I have enjoyed my classes. (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The strength of my network of friends, faculty, mentors, alumnae, etc. (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The feedback I have received from professors. (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills gained that I believe will increase employment opportunities (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Q32 What activities outside the classroom have you participated in, and why?
Q33 Please explain if you have achieved what you had hoped to get from your time at Wellesley. If not, what do you still hope to gain from your Wellesley experience?

Q34 Besides deciding what and where I will be after graduation, the biggest decision I have to make at Wellesley during senior year is:

Q35 Next year, I anticipate I will be:
• In graduate school or a postbac program (1)
• Working (2)
• Serving in the military (3)
• Taking a gap year before further school/work (4)
• Other (please specify) (5) ________________________________
Q36 What field of work do you anticipate entering as your first job?

Q37 Please provide additional comments or feedback regarding information on this survey.

Q38 If you are willing to participate in a focus group with me, please provide me your name and Wellesley email address. Randomly selected participants for a follow-up conversation will receive $20 cash gift cards and dinner will be provided.

• Name (1) ________________________________________________
• Wellesley Email (2) ________________________________________________

Q39 If you are willing to have me directly tie your responses to this survey to your responses to the Entering Student Survey responses you provided in the fall of 2014, please provide me with your name here. If not, leave blank:

Name: ________________________________________________. 

End of Block
Appendix E

Signed Informed Consent Document

Northeastern University, College of Professional Studies, Department of Education
Name of Investigator(s): Principal Investigator – Dr. Chris Unger; Student Researcher – Grace S. Cheng
Title of Project: Academic Decision Making in a Liberal Arts College Setting

Informed Consent to Participate in a Research Study
We are inviting you to take part in a research study. This form will tell you about the study, but the researcher will explain it to you first. You may ask this person any questions that you have. When you are ready to make a decision, you may tell the researcher if you want to participate or not. You do not have to participate if you do not want to. If you decide to participate, the researcher will ask you to sign this statement and will give you a copy to keep.

Why am I being asked to take part in this research study?
You are a member of the Wellesley College Class of 2018 and indicated in an online survey that you would be willing and able to participate in a student focus group session to discuss your experience in making decisions during your undergraduate years at Wellesley. You may have also filled out the 2014 Entering Student Survey when you entered Wellesley.

Why is this research study being done?
This research explores many decisions that college students are expected to make before and during their college years, including the choice to attend Wellesley College and other academic and co-curricular choices during their undergraduate years.

What will I be asked to do?
If you decide to take part in this study, we will ask you to participate in a focus group discussion with up to 5-7 other students in the Class of 2018. The researcher will ask you questions related to your experience in making decisions related to your Wellesley College experience. The discussion will be audio recorded. All information shared and discussion within the session will be kept confidential.

Where will this take place and how much of my time will it take?
A focus group session will occur on a day and time convenient to the participants and is anticipated to be 90 minutes or less. Location will be held in the Lulu Chow Wang Student Center.

Will there be any risk or discomfort to me?
There are no foreseeable risks or discomforts to you for taking part in this study. All input you will be providing and any discussion as part of this focus group session will be kept strictly confidential with no direct attribution in the study to an individual response(s) to focus group questions.

Will I benefit by being in this research?
There are no direct benefits to you from participating in this study. However, your responses may help us learn more about a series of decisions made by women during young adulthood, including the choice to attend Wellesley College and how Wellesley students have made academic and co-curricular choices during their undergraduate years. Choices such as picking a major, deciding whether to study abroad, pursue an internship,
or participate in a club, not only affect one’s overall college experience, but constitute a common set of
decisions all college students must make.

<table>
<thead>
<tr>
<th>Who will see the information about me?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your part in this study will be handled in a confidential manner. Any reports based on this research will use only group data and will not identify you or any individual as being affiliated with this project. To protect the identity of participants, I will use pseudonyms that provide anonymity and general descriptions rather than specific names for any input cited within the report.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If I do not want to take part in the study, what choices do I have?</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you do not want to participate, you do not have to sign this form.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What will happen if I suffer any harm from this research?</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are no significant risks involved in being a participant in this study. No special arrangements will be made for compensation or for payment for treatment solely because of your participation in this research.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Can I stop my participation in this study?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your participation in this study is completely voluntary. You do not have to participate if you do not want to and you can refuse to answer any question. Even if you begin the study, you may quit at any time. You can choose not to participate or discontinue your participation without penalty or cost of any kind.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who can I contact if I have questions or problems?</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you have any questions about this study, please feel free to contact Grace S. Cheng, the person mainly responsible for the research, via my Northeastern email at <a href="mailto:cheng.g@husky.neu.edu">cheng.g@husky.neu.edu</a> or 781-283-2309. You can also contact Chris Unger, the principal investigator, at <a href="mailto:c.unger@neu.edu">c.unger@neu.edu</a> or 857-272-8941.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Who can I contact about my rights as a participant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you have any questions about your rights in this research, you may contact Nan C. Regina, Director, Human Subject Research Protection, Mail Stop: 560-177, 360 Huntington Avenue, Northeastern University, Boston, MA 02115. Tel: 617.373.4588, Email: <a href="mailto:n.regina@neu.edu">n.regina@neu.edu</a>. You may call anonymously if you wish.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Will I be paid for my participation?</th>
</tr>
</thead>
<tbody>
<tr>
<td>You will be given a $20 gift card at the conclusion of the focus group session.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Will it cost me anything to participate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no cost to participate in a focus group session.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is there anything else I need to know?</th>
</tr>
</thead>
<tbody>
<tr>
<td>You must be 18 years old to participate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I agree to take part in this research.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature of person willing to take part</td>
</tr>
<tr>
<td>Printed name of person above</td>
</tr>
</tbody>
</table>
Signature of person who explained the study to the participant above and obtained consent

Date

Printed name of person above

..................................................................................................................
Appendix F

Focus Group Protocol and Question Set

Academic Decision Making in a Liberal Arts College Setting

Part I: Introduce Participants to Study

- Purpose of study: The purpose of this study is to evaluate a series of decisions made by women during young adulthood, including the choice to attend Wellesley College and how Wellesley students have made academic and co-curricular choices during their undergraduate years. Choices such as picking a major, deciding whether to study abroad, pursue an internship, or participate in a club, not only affect one’s overall college experience, but constitute a common set of decisions all college students must make. Though these choices may periodically change before graduation, students are forced to make decisions that affect a path to graduation and beyond. Are students strategic, practical, and/or deliberate about these choices?

- This is mixed methods case study, first analyzing quantitative data from an already collected data set from an Entering Student Survey which you may have filled out already when you were accepted to Wellesley in 2014. The second part of quantitative data was obtained from the online survey you completed earlier this fall.

- This part of the research is qualitative and is being conducted to complement the statistical data gathered from the online survey you completed earlier this fall. As you identified decisions that you have made during your undergraduate years so far, I would like to understand more about the influences behind these choices and changes, and how deliberate they were meant to be.

- Interests, career goals, previous educational experience, the role of advising, financial factors, familial, social, and peer pressures may all play a role in a liberal arts environment. Knowing how college students make decisions can assist college administrators with setting policies and timelines, as well as allocate scarce resources such as financial aid, faculty and staff coverage, and the administration of special programming.

- I am the Director of Admission at Wellesley College. However, this study is a partial fulfillment of the requirements for a doctor of education degree at Northeastern University. Whether or not you participate, or how you answer any questions will have no bearing on your rights as a Wellesley student.

- I have no preconceived notions on what your answers will be, nor am I looking for you to prove or disprove any theory – no right or wrong answers exist.

- I encourage you to be as candid and open as you feel comfortable.

Role of the Moderator:

- My role is to do the following:
- Ask initial questions that get the discussion going.
- Ask follow-up questions that probe further on key points you raise.
- Provide clarification if any topic or question is confusing.
- Encourage all of you to participate.
- Redirect the discussion if the conversation goes off topic.

Ground Rules and Confidentiality:
- The conversation today is being recorded via the application Rev.com for purposes of providing an accurate transcript of today’s discussion. The transcript will be used to identify themes across the conversation for purposes of augmenting the quantitative analysis being conducted on the data collected from the Class of 2018 survey. Your comments and discussion today will be made anonymous with no personal attribution made to your comments within the study.
- All input provided today during this focus group session will be kept strictly confidential. To protect the identity of participants, I will use pseudonyms that provide anonymity for any input cited in the study.
- Focus group participants will be asked to protect one another’s privacy and avoid discussion of comments within a session or after the focus group concludes.
- In order to allow this process to be accurate and thorough for analysis:
  - Please start each comment by saying your name; this will ensure comments are assigned the correct speaker.
  - Please speak one at a time and as clearly as possible.
- Do you have any questions before we start this session?

Getting Acquainted and Introductory Questions

Please introduce yourself and address the following in your introduction:
- Who you are?
- What is your hometown and major?
- What is the main reason you chose to attend Wellesley?

More Substantive Questions Specific to Addressing Topics Identified in the Quantitative Survey

- What is your understanding of Wellesley’s mission?
  - Is this the same as what you thought when you entered as a first-year student?

- Regarding your expectations of your academic/co-curricular choices upon matriculation, what did you imagine of your college experience and the opportunities you would be afforded?
  - How were those expectations changed once you got to college?

- Are you satisfied with the level of exploration you have taken advantage of during your time at Wellesley?
  - What factors added to your ability to make academic decisions (choice of major, club participation, study abroad, etc.) and reaching a level of comfort with this decision making?
o If not satisfied, what influences played a part in your not being satisfied with your level of academic exploration?

• Who or what people did you find most helpful in your academic decision making?
  o How often did you consult others to help in academic decision making?
  o Did you wish there were more resources to consult?
  o Why did you feel you needed external input towards making decisions for your own college experience?

• What interests do you have (academically and non-academically) that come from:
  o Self-exploration/stumbling onto a subject or opportunity yourself
  o Discussion with others that helped you form or develop your interest(s)
  o Not even knowing at first that you had that particular interest, but learned about it from others

• Name any opportunities you have taken advantage of that you believe you may never see again after you graduate from college?

• How much do you think about your future income/title after you graduate from Wellesley?
  o Describe any life path that you have already developed for yourself.

• What would you have changed about the choices you’ve made affecting your academic experience, if anything?

• What academic benefits have you experienced in a liberal arts environment?

• Describe your preparation and readiness for life after Wellesley College. What benefits do you foresee upon graduating?
  o What is the most important skill that you have learned in college that will help you after graduation?

What Haven’t We Asked You?

- Is there anything that we did not discuss that you believe is important for the researcher to know in better understanding what and how you have made decisions during your time at Wellesley College?
- Any last comments you wish to make?

Thank you for taking the time out of your busy schedule and sharing with us your experience.

1. Institution or Organization Providing IRB Review (Institution/Organization A):
   Northeastern University
   360 Huntington Ave., Mail Stop 560-177
   Boston, MA 02115
   Federalwide Assurance (FWA) #: 00004630
   IRB Registration #: Registration # of Institution A

2. Institution Relying on the Designated IRB (Institution B):
   Project Contact: Grace Cheng
   Institution: Wellesley College
   Address: 106 Central Street, Wellesley, MA 02481-8203
   FWA #: 00000598
   IRB Registration #: 00001401

3. The Officials signing below agree that Wellesley College may rely on the designated IRB for review and continuing oversight of its human subjects research described below: (check one)

   (X) This agreement is limited to the following specific protocol(s):
   Name of Research Project: Academic Decision Making in a Liberal Arts College Setting
   Principal Investigator: Chris Unger
   Sponsor or Funding Agency:
   Award Number, if any:

   ( ) Other (describe):

4. The review performed by the designated IRB will meet the human subject protection requirements of Institution B’s OHRP-approved FWA. The IRB at Institution/Organization A will follow written procedures for reporting its findings and actions to appropriate officials at Institution B. Relevant minutes of IRB meetings will be made available to Institution B upon request. Institution B remains responsible for ensuring compliance with the IRB’s determinations and with the Terms of its OHRP-approved FWA. This document must be kept on file by both parties and provided to OHRP upon request.

Signature of Signatory Official (Institution/Organization A):

[Signature]
Name and Title: Dana Carroll, Associate Vice Provost for Research
Date: 12/1/2017

Signature of Signatory Official (Institution/Organization B):

[Signature]
Andrew Sherman, Provost and Dean of the College
Date: 12/4/17