



**Perceptions of the Value of an Undergraduate Education from
Vanderbilt University**

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Executive Summary

Vanderbilt University is a highly-selective, private, liberal arts institution located in Nashville, Tennessee. This Capstone project focused on the development of a Vanderbilt University survey to help clarify how Vanderbilt University alumni value their baccalaureate education from a highly-selective, research one institution. Previous, surveys have focused on the starting salary Vanderbilt University alumni achieve once they graduate. The goal of this project was to identify which intangibles of the student experience alumni value most once they have graduated from Vanderbilt University. Considering the ever rising cost of post-secondary education, Vanderbilt University wanted to develop a survey that is able to measure the value of a bachelor's education primarily using metrics other than the starting salary of a graduate's first job. To achieve this objective, Vanderbilt University's Institutional Research Group (VIRG) submitted a Capstone Proposal to create and pilot this type of survey instrument.

Vanderbilt University's Institutional Research Group (VIRG) facilitates the

collection, integration, and distribution of strategic information (Vanderbilt Institutional Research Group, 2015). VIRG's mission is to collect, organize, and distribute information to support Vanderbilt University's vision for the future (Vanderbilt Institutional Research Group, 2015). In this capacity, they collect general information for the Vanderbilt University fact book which includes information on students, parents, faculty, staff and alumni (Vanderbilt Institutional Research Group, 2015). Vanderbilt University's Institutional Research Group proposed a Capstone project to determine the intangible value of a bachelor's education from a highly-selective research one institution. VIRG was interested in developing a survey instrument to measure and report on the value alumni perceive their bachelor's education to be worth. This project addressed the following key study questions:

1. *What elements of the student experience, based on Braxton's Eight Domains of College Student Success, do students/graduates of highly-selective research institutions value?*



2. *Does alumni perception of “value” vary based on alumni characteristics? (career aspirations, major, length of time since graduation)*

Study Design and Data Analysis

In order to develop a more complete picture of the key questions we began with a thorough review of the literature, followed by a two pronged approach in our research design. Our literature review helped guide our questions for both the focus groups and the development of the survey instrument. We conducted focus groups consisting of Vanderbilt undergraduate tour guides and parents of current students to discuss their perception of the value of a Vanderbilt University bachelor’s education. The feedback received from the focus groups, in addition to the literature review, helped inform the development of the survey instrument. The survey instrument was then reviewed by the team staff at VIRG, the Office of Development and Alumni Relations, and the Office of Admissions. Finally, the finished survey instrument was piloted on a random 10 percent sample of Vanderbilt University alumni to whom VIRG had access. The pilot results informed survey instrument revisions and refinements.

Research Findings

Question 1: What elements of the student experience, based on Braxton’s Eight Domains of College Student Success, do students/graduates of highly selective research institutions value?

Vanderbilt University alumni value the domains of student success of the Development of Cognitive Skills and Intellectual Disposition, Academic Attainment, and Academic Competence the most overall. However, less value is attached to personal development and the acquisition of general education.

Question 2: Does alumni perception of “value” vary based on alumni characteristics? (career aspirations, major, length of time since degree attainment)

Perceived value varied based on alumni characteristics in the following ways:

- Alumni who were working in their major field of study or in a related field have higher composite scores in all the domains of college student success than those working in an unrelated field, suggesting they valued those elements of the student



experience embodied by the domains more.

- There are no statistically significant differences in composite scores among the eight majors identified in this pilot study. It is unclear whether further stratification of the majors may yield any insight into whether perceived value varies across majors.
- There are no statistically significant differences in alumni composite scores based on length of time out of school.

Conclusions

Vanderbilt University alumni value the domains of student success of the Development of Cognitive Skills and Intellectual Disposition, Academic Attainment, and Academic Competence the most overall. This is not surprising due to the selective nature of Vanderbilt University admissions process that highlights academic achievements. However, Vanderbilt alumni score high on all of the domains of student success with a mean value of 3 or higher for all except Acquisition of General Education (2.9946) on a four point Likert scale. This suggests that Vanderbilt University has invested significantly in their student's

success through programming and enhancements to the student experience.

Based on the findings, value does vary based on alumni characteristics. In the pilot study career aspirations had the most significant effect on value based on Braxton's Eight Domains of College Student Success. Alumni working in their field were much more likely to have scored higher on the scales of student success, with the largest difference between them and those not working in their field of study, revealed in the domain of Occupational Attainment. We were unable to draw any conclusions on whether perception of value varies with respect to major or length of time since degree attainment from our pilot data, additional research is necessary to make any determinations.

Recommendations for Further Research

We have identified three recommendations for further research on the elements of the student experience students/graduates at highly-selective universities value most and recommend the following:



1. Conduct a longitudinal study.

By asking alumni what they valued after graduation, they may not have had a clear recollection of how useful or important each element was in determining value during their time at the institution. As a result, we cannot conclude whether students value the same things as alumni and vice versa making it difficult for the institution to respond with programming, or services, in order to increase perceived value. One way to overcome this threat to reliability is to conduct a longitudinal student study beginning in the freshman year. By selecting a cohort of students and administering the survey developed in this study to those students each year and at specific time intervals after they graduate, a more accurate account of what students and alumni value at different points in time will be gathered and available for analysis.

2. Administer the survey to students and alumni at other highly-selective research one institutions.

The data obtained from the pilot study was conducted only with Vanderbilt University alumni, the results cannot be generalized to all highly-selective research one institutions. One way to make the data more generalizable is by administering the survey instrument to students and alumni at other highly-selective research one universities to determine if the elements that students and alumni value most remain consistent across similarly selective institutions.

3. Administer the survey to students and alumni at less selective institutions.

In order to determine if those elements of value identified by students and alumni at highly-selective research one institutions are unique to those types of institutions, it will be necessary to administer the survey to students and alumni at less-selective institutions. A comparison of the data obtained across all types of institutions will help researchers understand if and how perceived value differs across institution type.



Recommendations for Practice

1. As a highly-selective institution, Vanderbilt University is able to attract students who excel in academics and are very academically focused. We recommend they continue to focus their efforts on their vision for a small learning community. The learning community was very prominent in discussions with students and parents, and is supported by the scales of student success valued most at Vanderbilt University.
2. Alumni working in their field of study value Braxton's Domains of Student Success more than those who do not. Because of this, we recommend Vanderbilt University focus on initiatives through career services to help students get jobs in their fields upon graduation.
3. Vanderbilt University alumni scored very high amongst all of the scales of student success. It is imperative that Vanderbilt University continue to provide the support services and activities which enrich the student experience that has been instrumental to their success, as reflected in the high composite scores across all domains.

Study Questions

1. *What elements of the student experience, based on Braxton's Eight Domains of College Student Success, do students/graduates of highly-selective research institutions value?*
2. *Does alumni perception of "value" vary based on alumni characteristics? (career aspirations, major, length of time since graduation)*



Introduction: Description of VIRG and its mission

The economic advantages of a postsecondary education have been well-researched and documented, however less well-researched is the value of the educational experiences that lead to these advantages. To gain greater insight into this area of postsecondary education, Vanderbilt University's Institutional Research Group (VIRG) proposed a study to determine the intangible value of an undergraduate education from a highly-selective research one institution as perceived by its alumni. The mission of VIRG is to supply the information and analysis to support Vanderbilt University's vision for the future by providing empirically based, decision-making support to University Offices through the collection, organization, analysis, and distribution of information concerning Vanderbilt University and the higher education community. As part of that mission VIRG conducts ongoing research on issues of importance to higher education and University decision-making and provides statistical and research consultations to central administration offices (Vanderbilt Institutional Research Group, 2015). It was within that role that VIRG became interested in developing a survey instrument to measure and report on the value alumni

place on their educational experiences at Vanderbilt University. The VIRG proposal called for the creation and piloting of a survey instrument designed to measure and report data on the value alumni place on their educational experiences.

Project Background

With the widespread acceptance that a college education is a force multiplier in an individual's personal and professional development, there is a strong incentive for students to attend the most highly-selective institution they can. Also, with the current climate of accountability, it is imperative that institutions of higher education be able to relay succinct messages about the value of the education they provide to their students, lawmakers, parents, alumni, and potential future students. The economic benefits that the enormously diverse and highly-stratified United States higher education system provides for its citizens is well researched and documented. However, the easily conceptualized pyramid of higher education consists of many low-status, broad-access institutions at the bottom and fewer high-status, narrow-access universities at the top. This narrowly defined system dictates that not all college degrees are the same, nor do



all provide the same economic returns. This implies that attending one of the most selective colleges provides even larger benefits for students (Reardon, Baker, & Klasik, 2012). Studies have consistently shown that holding everything else equal, earning a college degree leads to significantly higher wages for the general population. Perhaps not as surprising are the findings that revealed students who attended highly-selective institutions experience larger tuition subsidies, disproportionately more extensive resources, more focused faculty attention, and a disproportionate economic benefits derived as a result of attendance. Research studies which focused on the relationship between college selectivity and future earnings have found that students who attend higher quality colleges have better labor market outcomes (Reardon, Baker, & Klasik, 2012).

Competition for admission to highly-selective institutions has intensified with the fortunate few finding that they are increasingly surrounded by peers who achieve at higher levels, from affluent, highly-educated families, and experience a disproportionate increase in social and cultural capital (Reardon, Baker, & Klasik, 2012 & Stevens, 2009). This increasingly

competitive and accomplished potential student group led the Vanderbilt University's Institutional Research Group (VIRG) to question what students at highly-selective research one institutions value about their educational experience and if those experiences lead to later success.

The Vanderbilt University's Institutional Research Group proposed studying the intangible value of a bachelor's education from a highly-selective research one institution. The VIRG project is focused on the development of a survey instrument that would aid in the clarification of what Vanderbilt University alumni value about their baccalaureate undergraduate experience. Previously, the focus of VIRG alumni surveys have been on the starting salary of graduates. Conversely, the intent of this survey was to identify which intangibles of the student experience alumni value most once they have graduated.

As a highly-selective, private, liberal arts institution of postsecondary education, Vanderbilt University's Institutional Research Group endeavored to develop a survey instrument that is able to measure the value graduates placed on their educational experience primarily using metrics other than the starting salary of



alumni. This research project focuses on the value of an education as perceived by alumni of Vanderbilt University. Alumni's perception of the value of their educational experience was highlighted in the study conducted by Gallup in collaboration with Purdue University. The study entitled "Great Jobs, Great Lives" was supported by the Lumina Foundation and its results generated significant press (Gallup-Purdue, 2014). Articles from *US News and World Report*, *Inside Higher Ed*, and Association of American Colleges and Universities all cited the main result of the study to be that "College type has little to do with success" (Bidwell, 2014; Rivard, 2014; AAC&U News, 2014). The study concluded that the type of institution did not matter however, the type of relationship opportunities and engagement of students while they were at a given institution was important (Gallup-Purdue, 2014).

Project Study Questions

In light of the Gallup-Purdue study's conclusion that institution does not matter, it is the types of experiences and student engagement are what is important for engagement at work and subsequent well-being and success, it seems only fitting that the Vanderbilt Institution for Research

Group became interested in developing their own survey instrument. The ultimate goal of the survey instrument is to go beyond the Gallup-Purdue study and determine the intangible value of a baccalaureate education from a highly-selective university and see how this compares to student success indicators. This survey instrument has been piloted on a small random sample of Vanderbilt University alumni and the results are presented later in this report. The survey sought to answer the following key study questions:

1. *What elements of the student experience, based on Braxton's Eight Domains of College Student Success, do students/graduates of highly-selective research institutions value?*
2. *Does alumni's perception of "value" vary based on alumni characteristics? (career aspirations, major, length of time since graduation)*

Significance of the Study Questions

The focus on higher education and its outcomes is perhaps greater today than ever before, central to these concerns is



postsecondary education's rapid growth, cost of attendance, and perceived value. This enormous growth in the demand for higher education and the increased cost of attendance has led to concerns over accountability and evidence of quality within all universities (Van Raan, 2005). The question of quality in education has been answered primarily with evidence of return on investment and not through the lens of valuable educational experiences or individual student success. The earnings function method remains the dominate rate of return used today in the larger cost-benefit analysis of higher education (Psacharopoulos, 1981).

The economic returns from higher education in the United States can be significant and affords individuals a large variety of advantages in American society as it allows for improved quality of life through higher job satisfaction, increased earnings, higher personal and professional mobility, better health care, personal empowerment, increased volunteerism, a greater ability to pass on cultural capital to future generations and a longer lifespan than the general population (Salazar, 2013; Reardon, Baker, & Klasik, 2012). These benefits can be even larger for students that attend highly-selective postsecondary institutions

(Reardon, Baker, & Klasik, 2012). The impact on financial earnings for those attending highly-selective universities and colleges is based, in part, on the belief that "attendance at certain schools carries with it an aura of prominence" (Reardon, Baker, & Klasik, 2012, p 1163). Research reports that employers believe students attending elite educational institutions are exposed to specific vocabulary, style of dress, esthetic tastes, beliefs, and values that enable the development of a more open-minded attitude toward other cultures and are more aware of international issues (Tihanyi, Ellstrand, Daily, & Dalton, 2000). This argument suggests that employers, as the end users of higher education, ultimately determine its value based on perception of program quality, institutional prestige and academic reputation, and country image (Cubillo, Sanchez, & Cervino, 2007).

Certainly monetary gain as well as the disproportionate increase in social and cultural capital benefits experienced by those attending a highly-selective university or college (Reardon, Baker, & Klasik, 2012) are factors in institutional selection and has led to even greater competition for admittance at these institutions (Reardon, Baker, & Klasik, 2012). We know that in 2004, for example, students attending highly-



selective universities and colleges accounted for only about one-sixth of all students attending a four year college and had a median SAT score of at least 575 on both the math and verbal sections, a GPA of roughly 3.5, graduated in the top 35 percent of their high school classes college, and nearly 58 percent come from families in the top quartile of the income distribution (Reardon, Baker, & Klasik, 2012).

However, other non-monetary factors such as educational experiences and student success should also be factored into the overall evaluation of postsecondary educational benefits and value. Research supports the non-monetary benefits of higher education including the tendency to be more open-minded, more cultured, more rational, more consistent and less authoritarian than the non-postsecondary educated general population. Attendance at higher educational institutions has shown to decrease prejudice, enhance knowledge of world affairs and enhance social status. (Porter, 2002). But what do the students attending these highly-selective, elite institutions value most about their educational experience and how do these experiences relate to their overall postsecondary educational success? With the increased demand for postsecondary

education in general and especially among highly-selective universities and colleges from students from within the United States and abroad it is paramount that postsecondary institutions endeavor to understand what students value about their educational experience (Pereda, Airey, & Bennett, 2007). Postsecondary educational institutions routinely conduct student satisfaction or end of course surveys, unfortunately studies focusing on overall educational experience and student value are not as common and somewhat limited (Pereda, Airey, & Bennett, 2007).

The debate on the value of higher education and the tangible and intangible benefits of attendance continue today with increased interest on the economic returns for graduates. In the spotlight of this debate are the differences in educationally attained benefits found between graduates of highly-selective universities and colleges and those of less-selective institutions and brings again into question the purpose of higher education. Certainly today's conversation must include both the private and social benefits of higher education but as the pressure from stakeholders drive the employment and economic development purpose, with its easily verifiable earnings benefit, the more intangible benefit of



personal development and what students value about their educational experiences remain less examined. The value students place on their educational experiences have been found to be highly correlated with their educational choices (Hilmer & Hilmer, 2012). The concept of “value” is very subjective and within business is conceptualized as a trade-off between benefits and sacrifices (Eggert, 2006). There is also an element of competition reflected in value, stated differently, the perceived value of a commodity is reflected by competing offers (Eggert, 2006). The importance of these educational experiences cannot simply be measured and evaluated using end result labor-market metrics which tend to undervalue or discount factors such as promoting public good, broad cultural knowledge, and critical-thinking which are all essential in maintaining a well-functioning democracy (Strohl, 2012).

Study Design

Overview of the Design

In order to develop a more complete picture of the key questions we began with a thorough review of the literature, followed by a two pronged approach in our research design. Our literature review helped guide our questions for both the focus groups and

the development of the survey instrument. We conducted focus groups consisting of Vanderbilt University undergraduate tour guides and parents to discuss their perception of the value of a Vanderbilt University bachelor’s degree. The feedback received from the focus groups, in addition to the literature review, helped inform the questions for the survey instrument. The survey instrument was then reviewed by the staff at VIRG, the Office of Development and Alumni Relations, and the Office of Admissions. Finally, the finished survey instrument was piloted on a random 10 percent sample of Vanderbilt University alumni to whom VIRG had access. The pilot results informed survey instrument revisions and refinements. The focus groups and survey instrument were approved by the Vanderbilt University Institutional Review Board #151635.

We more fully describe each of these elements of the study design in the subsections of this report that follow: Literature Review, Focus Groups, and Survey Development.



Literature Review for Focus Group Questions and Survey Development

Literature Review: Instrument Development

Our literature review helped guide our questions for both the focus groups and the development of the survey instrument. Several years ago, VIRG performed a preliminary literature review on the value of a baccalaureate degree and this preliminary source was used in combination with a more comprehensive review of the literature to provide the grounding for the development of the survey instrument. Additionally, VIRG was very interested in the measures and indicators used by the Gallup-Purdue Index Report: Great Jobs Great Lives (2014) that reported that the college experience was extremely important to overall well-being and that it did not matter which college or university one attended (2014). Our research began with an expanded and more comprehensive review of scales and surveys that have assessed different definitions of “value” specifically in the context of a college degree. The 2014 Gallup-Purdue Index, based on the input of more than 30,000 college graduates, provides insight into to the relationship between the college

experience and the long-term success of graduates. Among the factors used to measure graduates current well-being and workplace engagement research shows that other identified factors hardly matter in comparison to the student’s undergraduate experiences. Supported by Lumina, the Gallup and Purdue University research that yielded the Gallup-Purdue Index focused on three primary areas of discovery; workplace engagement, well-being, and alumni attachment to their alma mater (Gallup-Purdue, 2014).

Workplace engagement involves the intellectual and emotional connection to organizations and work teams based on the enjoyment of their work, the feeling of doing what they do best, and having someone concerned about their professional development. The workplace engagement assessment was based on responses to 12 individual elements which resulted in an individual rating of engaged, not engaged, or actively disengaged. Engaged individuals were found to be involved in and enthusiastic about their work, loyal to their employers and teams, and productive in the workplace. Researchers found only 30 percent of Americans to be engaged in the workplace (Gallup-Purdue, 2014).



Well-being was defined by the Gallup-Purdue researchers as the interaction and interdependency between many life aspects including finding fulfillment in daily work and interactions, strong social relationships, access to needed resources, feeling financially secure, physically healthy, and participation in a true community. The area of well-being is comprised of five individually defined elements including purpose, social, financial, community, and physical well-being. Based on the responses provided each of the five individual elements of well-being were rated indicating that the individual was thriving, struggling, or suffering in that element of well-being. Individuals rated as thriving by researchers were described as being strong, consistent, and progressing in the workplace. While those rated as struggling were seen as moderate or inconsistent in the workplace, those rated as suffering in a well-being element were described as being at high risk of failure. Although thriving in all five well-being elements would be seen the pinnacle of well-being, research indicates that in 2013, 29 percent of Americans were not thriving in any of the well-being elements (Gallup-Purdue, 2014).

The element of alumni attachment to alma mater measured the graduates' current

emotional attachment to their former postsecondary educational institution. Researchers assessed alumni attachment through the exploration of graduates' perceptions of their institution in retrospect of their educational experiences and as current alumni. Alumni attachment was measured based on the examination of graduates' perceptions of educational experiences including if they felt the institution was a good fit for their needs, having a professor that care about them as a person and made learning exciting, if they were encouraged to pursue their dreams, and felt that the institution had prepared them well for post-graduation life (Gallup-Purdue, 2014). The Gallup-Purdue Index report supports that the secret to long-term outcomes for student success in postsecondary education may be found in the student's feelings of support (professor that cared, professor that made learning exciting, having a mentor) and participation in deep learning experiences (internships, extracurricular activities, organizational involvement, long-term projects). The Gallup-Purdue Index reports graduates that felt supported were three times more likely to be thriving in the area of well-being than graduates that didn't feel supported. The researchers added to the conversation by identifying what students value about their



educational experiences and the effects these experiences can have decades after graduation (Gallup-Purdue, 2014).

In order to determine if the educational experiences that students of highly-selective universities value the most impact their overall well-being and success a comparison between those experiences and Braxton's eight domains of student success was conducted. How alumni perceive the value of their degree may be intertwined with their success while in college. Braxton (2006) was successful in organizing the large assortment of indicators of postsecondary student success into eight distinct categories: academic attainment, acquisition of general education, development of academic competence, development of cognitive skills and intellectual dispositions, occupational attainment, preparation for adulthood and citizenship, personal accomplishments, and personal development. Each of Braxton's (2006) eight domains of student success are described below.

Academic Attainment

Student success factors of academic attainment consist of threshold indicators, which allow for varying degrees of success

and level of significance. Threshold indicators include persistence in college, persistence to the senior year, early or on time graduation, and choice of a major. These indicators of student success can be achieved in degrees of success, where differences in performance determine level of success from that of a minimal level to a high level of success. An example of threshold indicators would be that of grades, where maintaining the minimum grade point average (GPA) for continued enrollment would be considered successful, however graduating with honors or the admissions into a graduate or professional school would indicate a higher level of student success (Braxton, 2006).

Another threshold indicator of student success is that of academic learning or knowledge gained. Academic learning can be measured through performance on course examinations and standardized test, such as the Graduate Record Examination (GRE), the Law School Admissions Test (LSAT), or the Medical College Admissions Test (MCAT) with student success being evaluated on the level of student performance (Braxton, 2006). Student success has been widely defined focusing on performance outcomes, mainly concentrating on course or semester grades



and with some less frequently, college persistence and academic attainment (Svanum & Bigatti, 2009). Engagement theorist, such as Tinto, have concentrated their efforts on student involvement, arguing that student success is influenced by the degree of student engagement both in academic and other non-academic college related activities, including items such as, time and task management, seeking help from peers, and interactions with professors as components of student engagement and thereby student success (Svanum & Bigatti, 2009). Noting the relationship between academic course engagement to degree attainment and time to degree, it is not surprising to find that engaged students were more likely to succeed than less engaged peers and had also performed better than predicted based on mid-point GPA and college admission examinations (Svanum & Bigatti, 2009).

Especially interesting in highly-selective institutions of higher education are the reported results of the halo effect on some student success, indicating that when students are grouped by perceived ability, students in higher ability groups performed better than peers due to the symbolic value of being in the higher ranked group, supporting the notion that students in

higher ranked groups, anticipating future membership in high-status groups, are motivated to learn more and thereby achieve higher success (Tach & Farkas, 2005).

Acquisition of General Education

Unlike that of academic attainment, indicators utilized in the acquisition of general knowledge domain are not measured using threshold indicators or degrees of student success and instead focuses on opportunities to attain success in the common educational experiences of postsecondary students at all institutions of higher education. Success in the acquisition of a general knowledge domain centers on the attainment of knowledge in the arts and sciences with an understanding of scientific developments and their application in society, an understanding of significant world cultures and ways of life, an appreciation of ideas, literature, and the fine arts. Success in the acquisition of general knowledge domain would also include the development of an increased awareness of community, social, and world problems (Braxton, 2006).



Development of Academic Competence

The development of academic competence domain of student success includes writing and speaking in a clear, correct, and effective manner, reading and mathematical skills, and competency in a foreign language, the ability to effectively organize and present ideas both in the written and oral forms. Successful achievement of academic competence is determined by threshold indicators of the level or degree of success; where meeting satisfactory academic progress in the student's field of study would denote a minimum level of development, whereas the mastery of the vocabulary, facts, and principles of an academic field could be reflect a high level of success, representing a significant accomplishment (Bowen, 1977, 1996).

Development of Cognitive Skills and Intellectual Dispositions

The development of cognitive skills and intellectual disposition domain go far beyond the basic subject matter knowledge that they represent and signify a more complex assortment of general intellectual skills and competencies. These skills and

competencies include elements such as critical thinking, analytical and problem-solving skills, ability to analyze and synthesize information, weighing evidence and evaluating facts critically, ability to develop defensible arguments and the practical application of knowledge are indicators of student success. Such intellectual dispositions include the development of good academic work habits, the development of an interest in intellectual and cultural matters, an increase in intellectual activity, and the acquisition of such attitudes and values as intellectual tolerance, intellectual integrity, wisdom, and lifelong learning. Additionally other indicators of cognitive skills and intellectual disposition domain include an openness to new ideas and a willingness to question convention, intellectual curiosity, an understanding of the limits of current knowledge and thought, and a proclivity for lifelong learning (Braxton, 2006).

Research has shown that the gain in learning and cognitive development contributed to higher education completion is most significant in the first year of the experience. First year to senior year comparison found that up to 95 percent of knowledge gains in English, science, and social studies occurred in the first two years of the college experience. Similarly the increase in critical



thinking skills by as much as 90 percent was found during the first two years of the college experience. Previous studies show that the more engaged students are in academic competence activities and co-curricular experiences the more cognitive development growth should be expected (Reardon, Terenzini & Domingo, 2006). Within the domain of cognitive development, the student's out-of-class experiences with peers and faculty had the most consistent impact of content acquisition and mastery (Reardon, Terenzini, & Domingo, 2006).

Occupational Attainment

Unlike other indicators of student success, occupational attainment success indicators manifest after the students have graduated. These indicators include having a sense of career direction, obtaining employment after graduation within their field of study, and receiving professional training for a chosen occupation. Other indicators of student success in the occupational attainment domain can include experiencing job satisfaction, acquiring a professional, semi-professional, or managerial position, a career that allows use of graduate's special abilities, the opportunity to be creative and original,

and the opportunity to attain social status and prestige (Braxton, 2006).

Unlike other indicators of student success, occupational attainment success indicators manifest after the students have graduated.

Evidence suggests that higher cognitive skills affect preferences and choices that determine economic success of individuals. Studies support the findings that higher cognitive skills are associated with higher social awareness, the tendency to be more cooperative in strategic settings, and can also significantly affect job success (Burks, Carpenter, Goette & Rustichini, 2009). Cognitive ability has been shown to have an effect on job performance seemingly accounting for the pace and thoroughness that individuals can acquire knowledge or training. However, expectancy theorist suggest individuals will not engage in activities for which they believe they are not capable and will only engage if they believe they have or could acquire the attributes required and therefore prior successful experiences are necessary for individuals to develop a strong expectancy belief (Dreher & Bretz, 1990).



Preparation for Adulthood and Citizenship

Student success indicators of preparation for adulthood and citizenship domain consist of the development of social skills and personal habits important for adult living that are shaped during postsecondary attendance. The development of these social skills and personal habits are necessary for successful functioning in the middle and upper middle class environments. Social skills include manners, poise, presenting oneself and ideas in an acceptable manner, and ability to lead a group. Personal habits include meeting deadlines, starting and finishing tasks, time management, and ability to multi-task effectively. Other significant indicators of student success in the preparation for adulthood include the personal qualities needed for a stable family, the knowledge and skills needed for child rearing, and the ability to effectively divide time between work, leisure, and other activities. The preparation for citizenship entails understanding and interest in civic and political affairs, knowledge of government and its procedures, ability to deal with bureaucracies, ability to evaluate propaganda and political arguments, observance of the law and the development of an awareness of major social issues,

participation in community and civic affairs, and participation in local and national politics (Braxton, 2006).

Personal Accomplishments

The student success domain of personal accomplishments involves extracurricular achievements. Indicators of student success include working on the college newspaper staff, student member of a university committee, participation in intercollegiate sports, election to a student office, services as a residential hall advisor or admissions tour guide, publication of original writings, and authoring an article for a scholarly publication (Braxton, 2006).

Personal Development

The personal development domain of student success is linked to the student's personality development, adjustment, and moral and philosophical development. Elements of personal development are classified as internal and external markers. Internal markers of student success include the development of interpersonal and intellectual self-esteem, making one's own decisions, self-discovery (knowledge of one's own talents, interests, aspirations, and weaknesses), development of personal identity, attainment of psychological



stability and self-sufficiency, and development of self-understanding and emotional maturity, sense of security, self-reliance, decisiveness, and the ability to express emotions in a constructive manner, ability to cope with problems in a versatile and resourceful way, the ability to learn from experience, and the development of a capacity to accept change. Additional indicators include the ability to relate to others, tolerance and understanding of other people, development of skills and confidence in interacting with different kinds of people and the establishment of friendships and loyalties that endure.

External indicators involve an individual's orientation toward the external world, the future, and the capacity for human understanding (communication skills, formation of empathy, thoughtfulness, and an attitude of respect and cooperation toward others) and include the development of the ability to plan ahead, a tendency to be prudent in taking risks, and the formation of a realistic view toward the future. Student success in the personal development domain denotes the development of moral capacities and ethical standards leading to an increase of moral sensitivity and courage, development of a social consciousness,

creating a valid, internalized set of values and moral principles, and a commitment to social responsibility (Braxton, 2006).

Survey Items Table

The root questions and elements were derived from the literature review, analysis of previous surveys, and refined and reinforced by focus group sessions. Each of the eleven “root questions” were designed as a general umbrella that would allow for the exploration of elements of the student experience under that root question. The elements of each root question were designed to correspond to each of Braxton's Eight Domains of College Student Success. The selected root questions used as part of this study were developed to explore four central themes identified during the literature review. The themes of student expectations and satisfaction (root questions 1, 4, and 7), student growth and development (root questions 8, 9, and 10), preparation for post-graduation life (root questions 5 and 6), and educational experiences (root questions 2, 3, and 11). The following figures (**Figure 1 – Figure 11**) present the root questions and their elements as they relate to Braxton's Eight Domains of College Student Success.

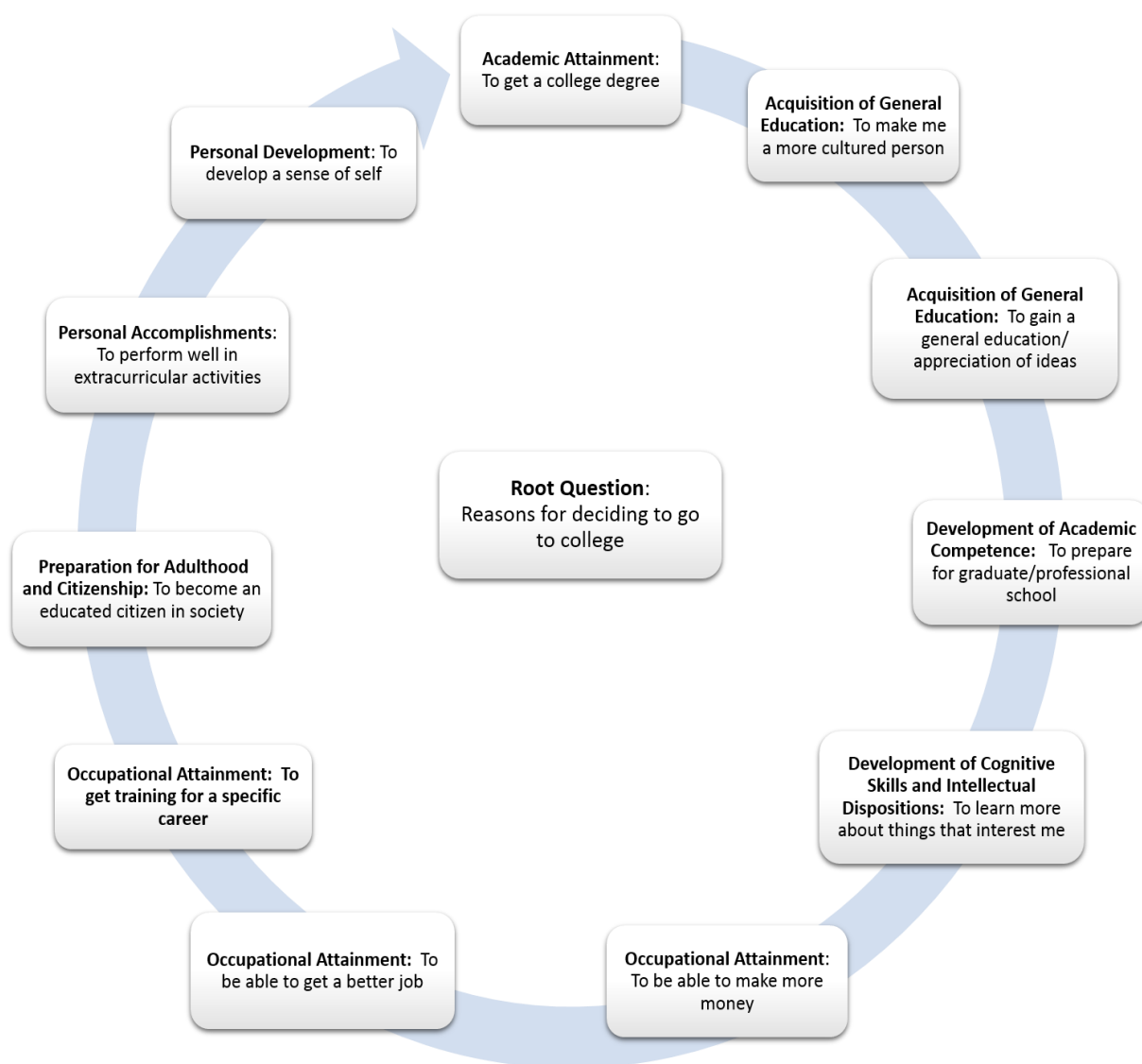


Figure 1: Root Question 1 with elements related to Braxton's Eight Domains of College Student Success

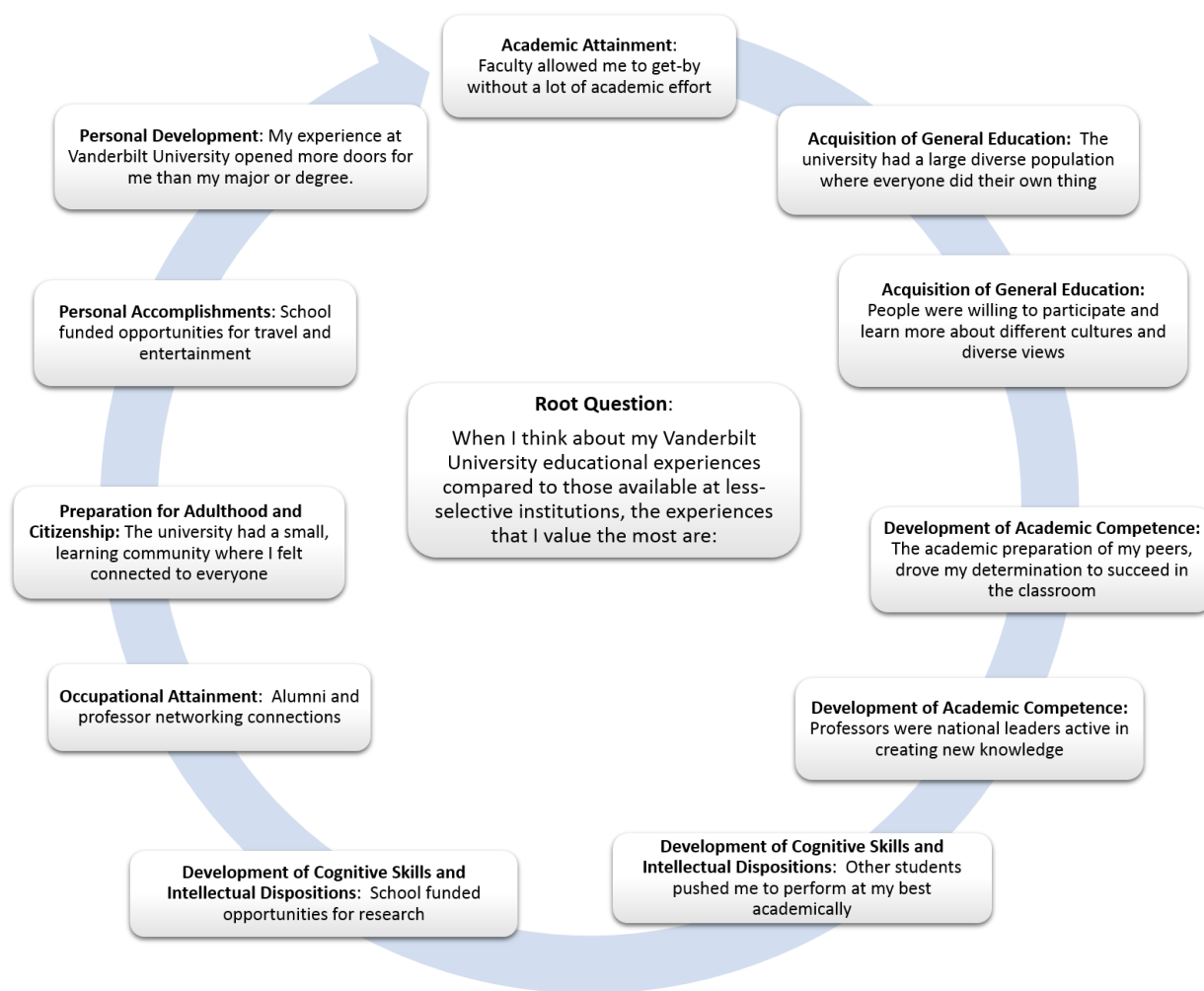


Figure 2: Root Question 2 with elements related to Braxton's Eight Domains of College Student Success

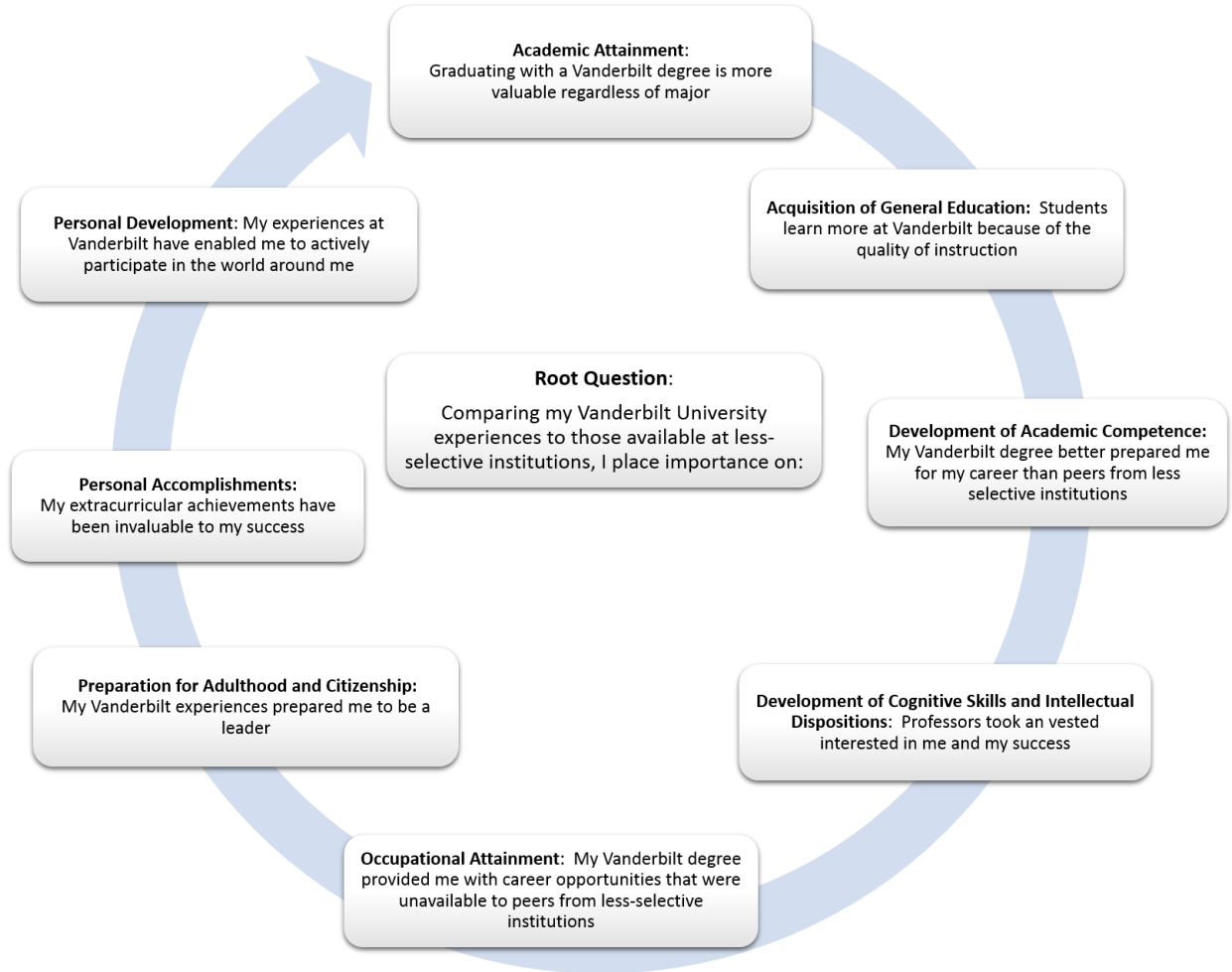


Figure 3: Root Question 3 with elements related to Braxton's Eight Domains of College Student Success

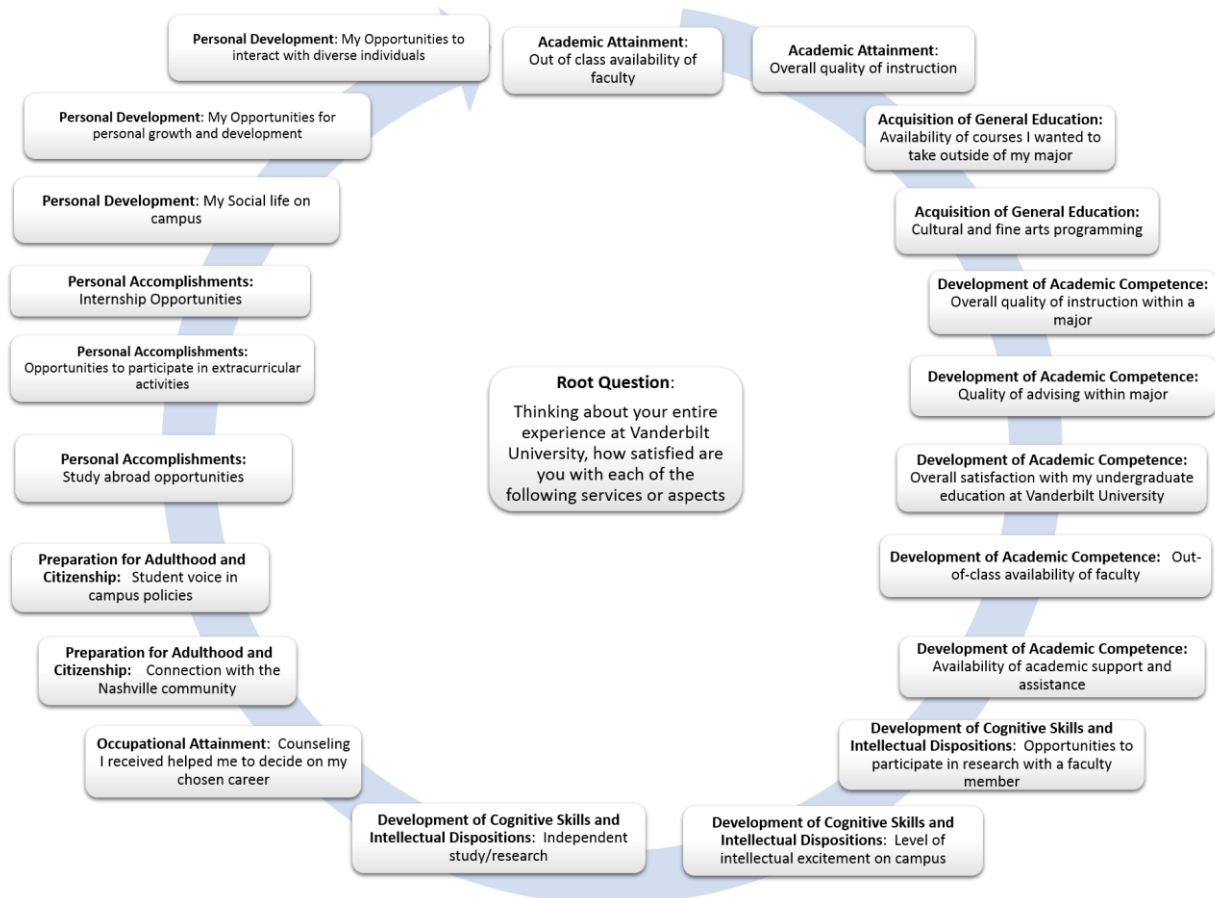


Figure 4: Root Question 4 with elements related to Braxton’s Eight Domains of College Student Success

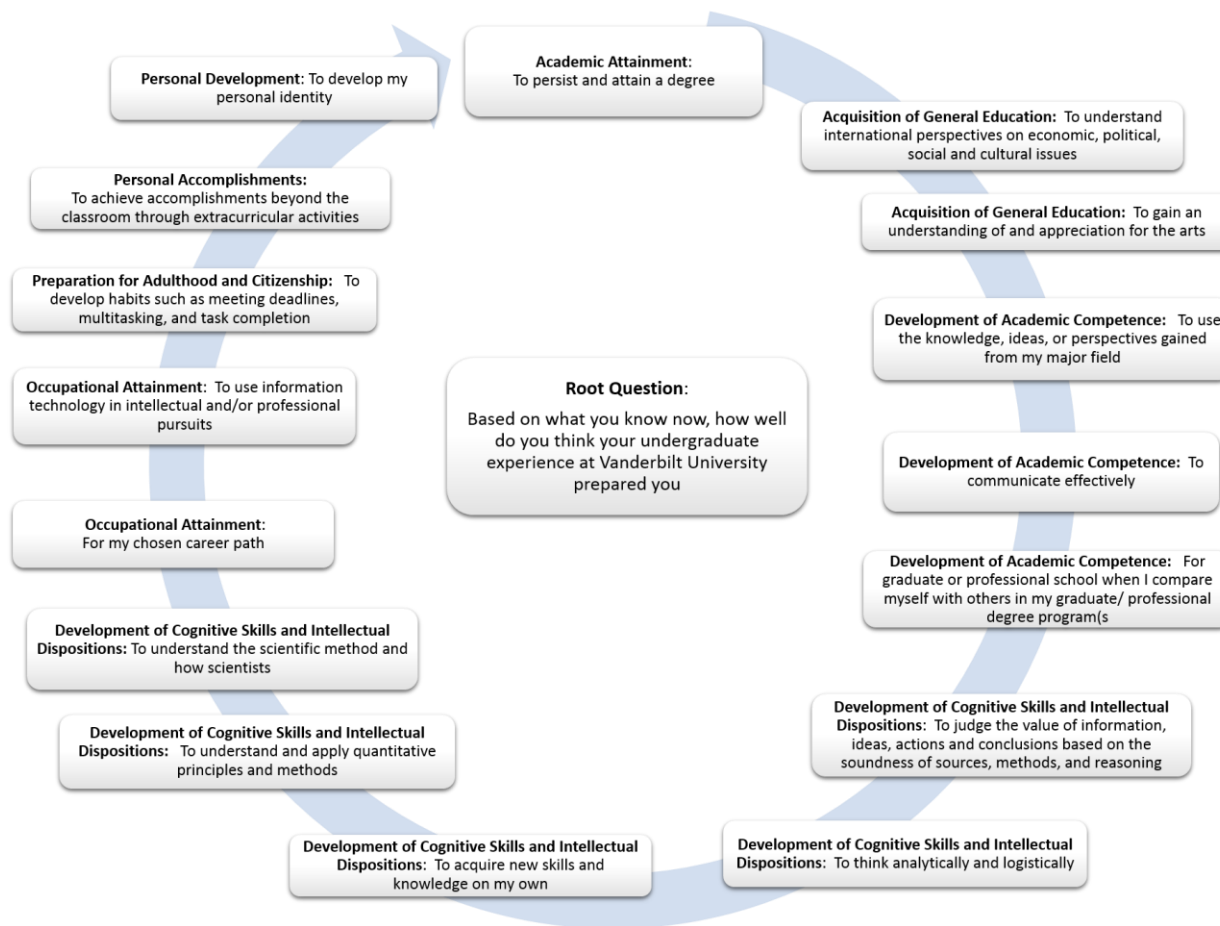


Figure 5: Root Question 5 with elements related to Braxton's Eight Domains of College Student Success

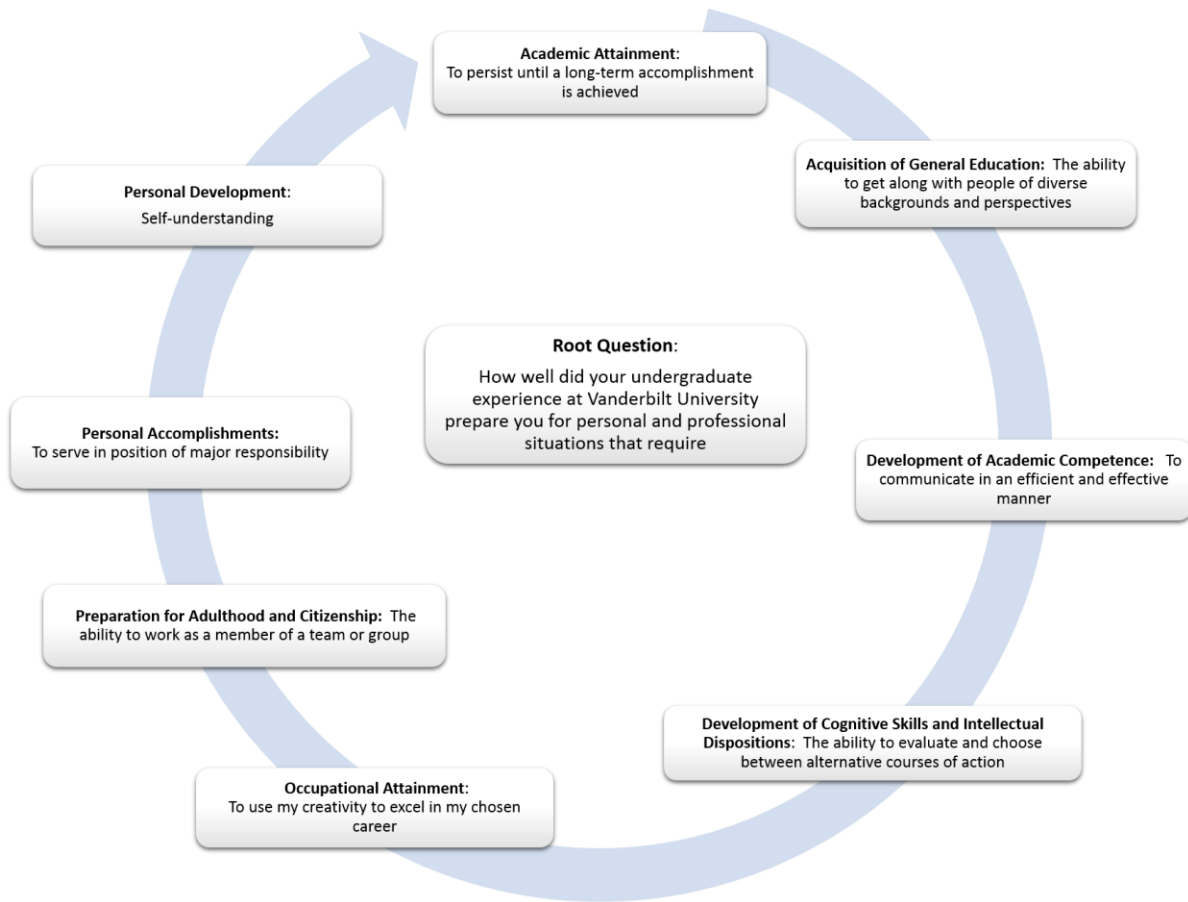


Figure 6: Root Question 6 with elements related to Braxton's Eight Domains of College Student Success

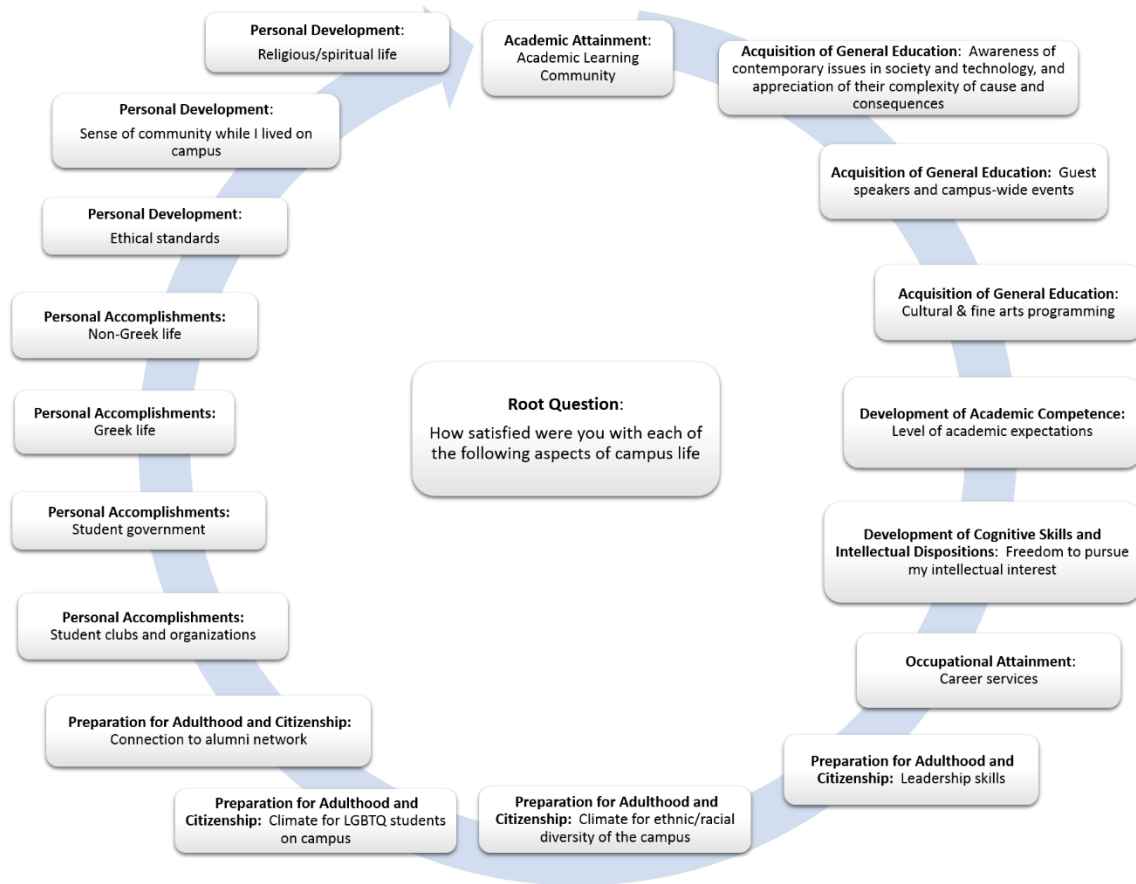


Figure 7: Root Question 7 with elements related to Braxton’s Eight Domains of College Student Success

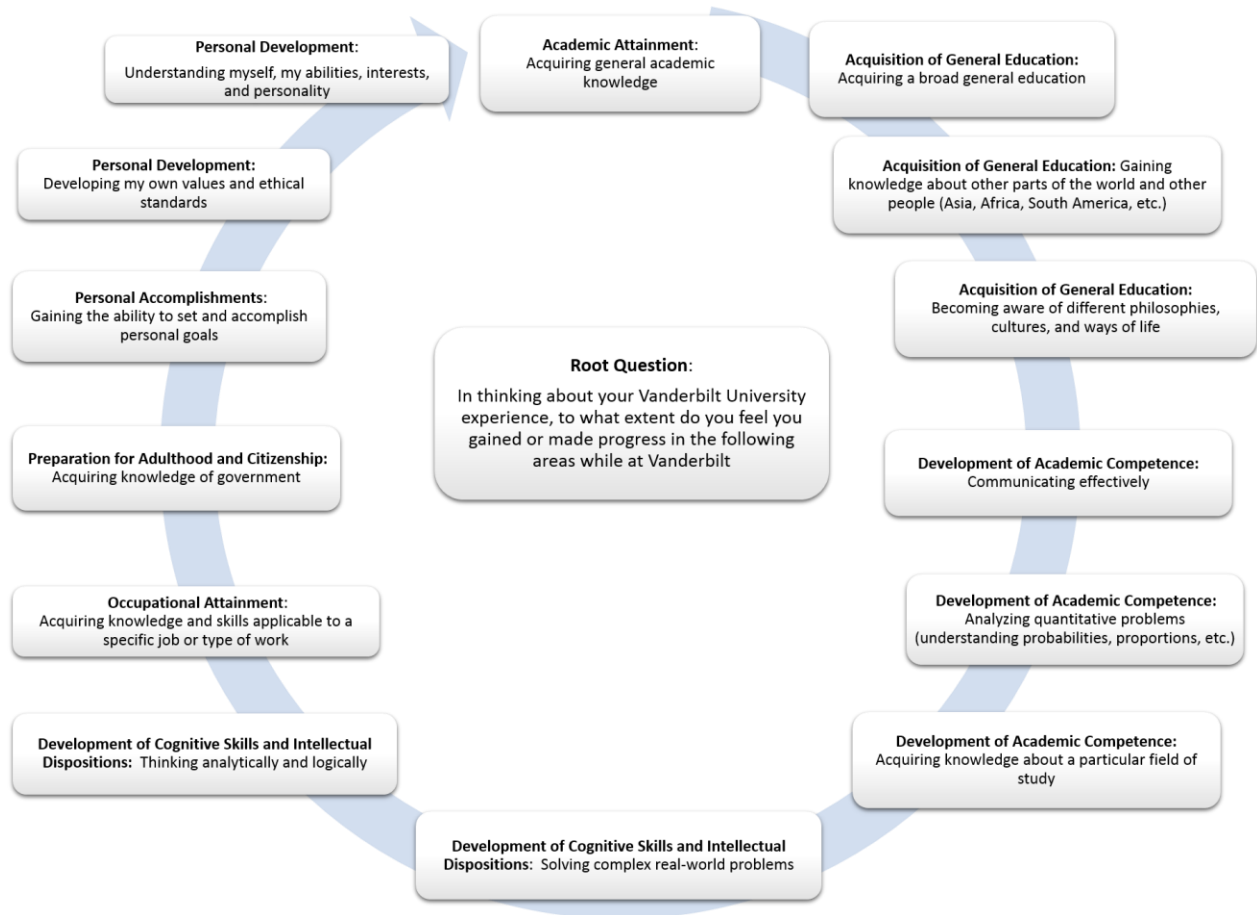


Figure 8: Root Question 8 with elements related to Braxton's Eight Domains of College Student Success

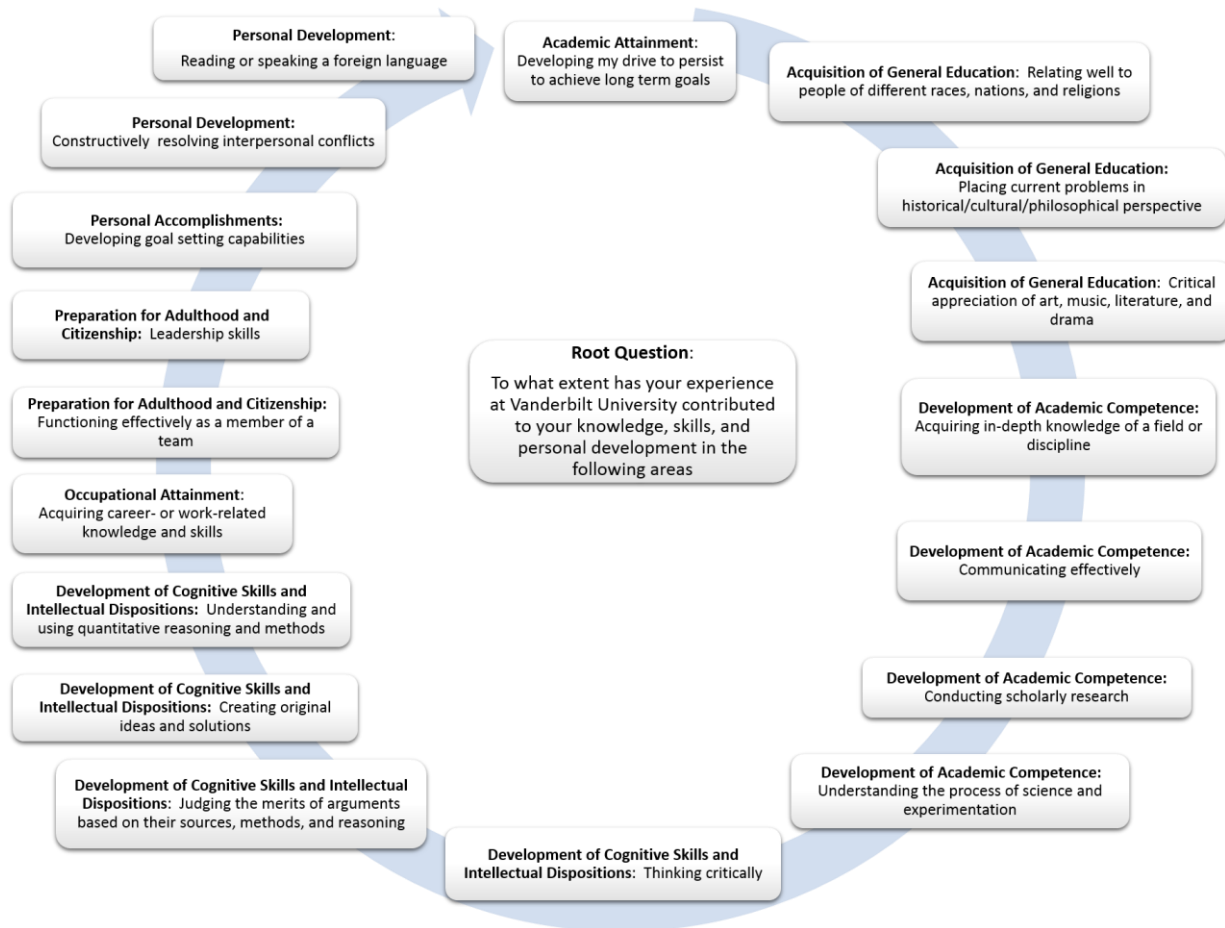


Figure 9: Root Question 9 with elements related to Braxton's Eight Domains of College Student Success

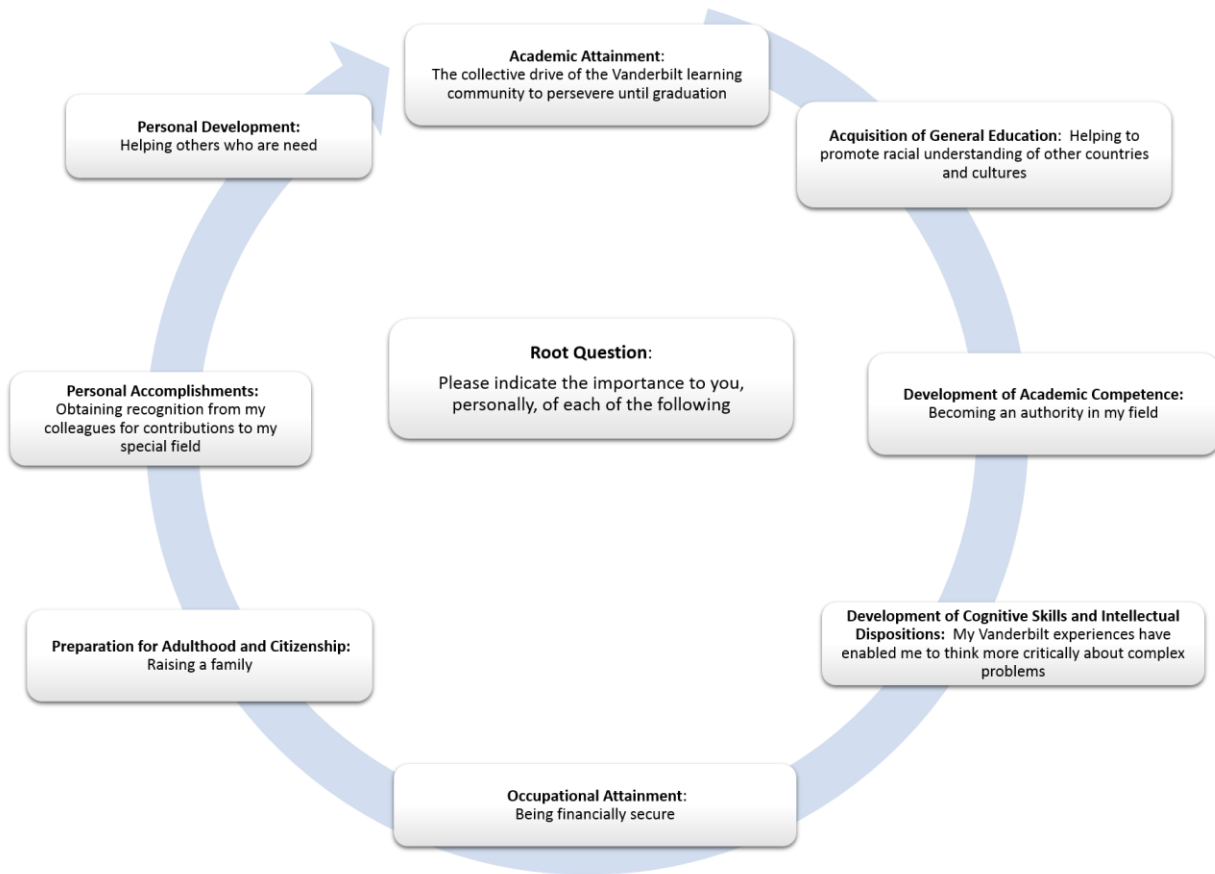


Figure 10: Root Question 10 with elements related to Braxton’s Eight Domains of College Student Success

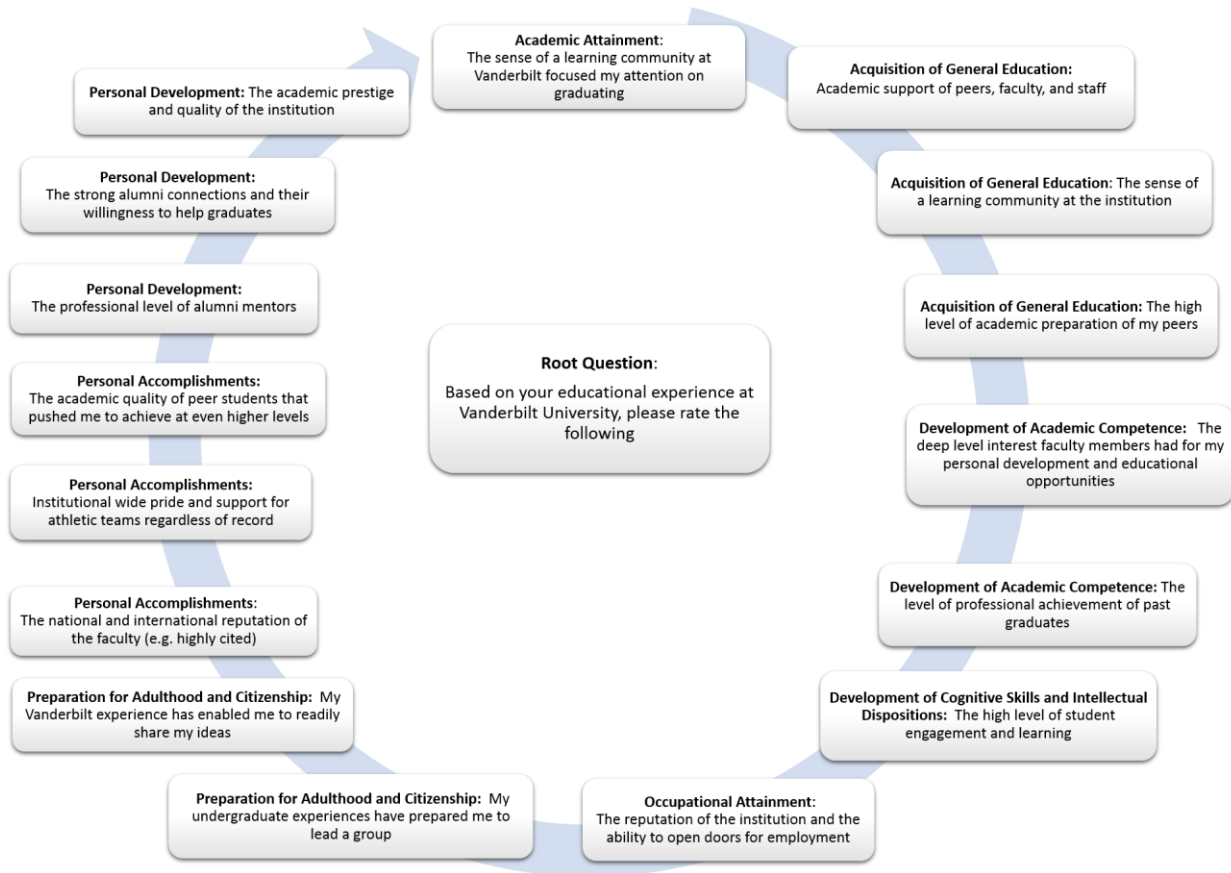


Figure 11: Root Question 11 with elements related to Braxton’s Eight Domains of College Student Success



Focus Groups

We conducted focus groups consisting of Vanderbilt undergraduate tour guides and parents to discuss their perception of the value of a Vanderbilt University bachelor's degree. The purpose of the focus groups was to obtain additional information to aid in the development of a survey instrument to determine the intangible value of a bachelor's education from a highly-selective research one institution. Two participant groups, students and parents, were utilized as part of the focus group session in order to identify and compare themes that emerge from multiple focus group discussions.

The first focus group was comprised of volunteers from Vanderbilt's undergraduate tour guides. This group was selected because they are actively engaged in the university and must answer potential student and parent questions, therefore they had the unique perspective of knowing what they value about their degree and insight into what potential students and their parents' value. Ms. Katherine Sentell, President of Vanderbilt University's Undergraduate Student Tour Guides group, distributed a short description of the study to her group and asked students who were interested in contributing to the study by participating in

a focus group to contact her for additional information.

A focus group with five Vanderbilt University undergraduate students was conducted on October 13, 2015. This focus group consisted of two female and three male undergraduate students. These students represented four juniors and one senior with majors in mechanical engineering, computer engineering, neuroscience, communications and human and organizational development. The Focus Group Protocol, which guided our focus groups, can be found in **Appendix A** and the transcription of the focus group responses and discussion can be found in **Appendix B**. A second focus group was scheduled for November 10, 2015 with the Student Tour Guides in order to increase the number of participants to ensure the group was well represented, however no additional students were able to participate and time constraints required us to proceed with instrument development.

The second focus group consisted of volunteers from the Vanderbilt University's active parents' group. Dr. Anna Thomas, Director of Parents and Family Programs, coordinated a focus group with parents. The parent focus group was conducted on



November 12, 2015 and consisted of four Vanderbilt University student parents: three female and one male. Their children were psychology, engineering and economics majors and were graduating in 2014, 2016, and 2018. The Parents' Focus Group Protocol is also included in **Appendix A** and its transcription is located in the **Appendix C**.

Information gathered during the focus group session was considered confidential and no names were collected, used or associated with any particular response. Data were shared as themes to aid in the development of a survey instrument and there has been no attribution of data to any specific person. Participants were informed that should they be uncomfortable or if they felt the need to leave during the focus group session, they do so without consequence. Participation in the focus group session was voluntary and participants were able to pass on any discussion question. Focus group sessions lasted approximately 45 minutes.

The Capstone team members served as facilitators for the focus group discussions and made an effort to ensure that participants understood the purpose and scope of the project. We also took measures to ensure participants felt free to express

their thoughts and ideas without worrying of any repercussions and worked to keep the discussion going. We did not participate in the dialogue or correct participants other than reinforcing the goal of the focus group and providing task clarification.

Survey Development

The literature review of the domains of student success guided the development of the survey instrument along with the data collected from the student and parent focus groups. A critical review of previous institutionally approved and vetted survey instruments was conducted prior to survey design and development and contributed to the face validity of the final instrument. The review of previously vetted institutional survey instruments included the following instruments: the 2014 Consortium on Financing Higher Education Graduating Senior Survey focusing on quality of academic experiences, course instruction, and campus services and facilities; the Undergraduate Alumni Survey Report: 5 years Post-Baccalaureate (2008 class results) concentrating on current career and educational activities, degrees obtained, debt incurred, and opportunities for skills development; the Graduating Student Survey 2013 focusing on perceptions of



institutional activities, internship participation, quality of academic experiences, quality of course instruction, quality of campus services and facilities, quality of campus life, employment, and overall satisfaction; and the Cooperative Institutional Research Program (CIRP) Freshman Survey Trends Data (2013) concentrating on student characteristics, academic preparation, college admissions and decisions, student plans and goal, student views and opinions, student activities, and parent income, career, and educational levels. Additionally, information obtained during both the Student Focus Group and Parent Focus Group sessions was used in the development of survey questions for the final instrument. In order to ensure that all eight domains of student success were adequately covered, each root question contained at least one item from each of the eight domains of student success (see **Appendix D** for survey instrument). A sortable version of the instrument was also produced using Microsoft Excel to make it easier to sort each scale for the eight domains of student success and see the individual items making up each scale and will be provided to the client.

The survey instrument was then reviewed by Ms. Meagan Burton-Krieger, the Director of Annual Giving Stewardship

within Office of Development and Alumni Relations. Her professional opinion was that the survey instrument reflected the aspects of the student experience that Vanderbilt University Alumni often discuss with her and her colleagues and she did not recommend that any additional aspects be included. In parallel the survey instrument was also reviewed by the Director and Associate Director of Admissions. They both felt that the survey instrument reflected what they believe should be acquired during an undergraduate career at Vanderbilt University. They provided suggestions for edits for question rewording, which we made, however they did not have any additional questions to include. This review of the survey instrument established face validity for the items that comprise the instrument.

Administration of the Pilot Survey Instrument

With the survey instrument constructed and assessed as face valid, we administered the instrument to address the following two questions that guided this capstone project:

1. *What elements of the student experience, based on Braxton's Eight Domains of College Student Success, do*



students/graduates of highly-selective research institutions value?

2. *Does alumni's perception of "value" vary based on alumni characteristics? (career aspirations, major, length of time since degree attainment)*

Pilot Survey Sample

The Vanderbilt Institutional Research Group had 14,319 email addresses on file for alumni who had graduated from Vanderbilt University between 1996 and 2009. SPSS was used to select a random 10 percent sample from these email addresses resulting in our survey being sent to 1425 email addresses. Random sampling was used in order to make it possible to generalize the results to Vanderbilt University alumni. From these 1425 emailed surveys 186 alumni responded and participated in the survey for a response rate of 13 percent.

Pilot Data Collection

The approved survey instrument was uploaded into Qualtrics software and provided to the client for distribution to a small number of alumni. The client determined that distributing the survey to 1,425 alumni would result in approximately

200 responses, which would give the survey enough power to potentially draw some preliminary conclusions about the instrument. SPSS software was used to randomly select and send the survey instrument to 10 percent of the 14,319 alumni emails in the Vanderbilt Institute for Research Group's database.

The initial survey invitation was sent out on 2:21PM EST on January 27, 2016. The first reminder email was sent on February 1, 2016 at 12:30PM EST. A second reminder email was sent on February 10, 2016 at 3:28 EST and a final email reminder was sent on February 17, 2016 at 1:00PM EST. Emailed invitations and reminders can be found in **Appendix E**.

Mailing Wave Bias Analysis

One method we used to determine whether our pilot sample was biased was through mailing wave analysis. We performed an ANOVA analysis using respondent mailing wave as the independent variable and our scale composite scores as the dependent variables. Through this analysis we wanted to determine whether there was any significant difference between the composite scores of those who responded at the beginning of data collection and those who



responded later after subsequent reminders. Our ANOVA indicated that seven of the eight scales had no significant differences in their composite scores when analyzed by respondent mailing wave. However, the Scale for Academic Competence did show a significant difference between the composite scores stratified by mailing wave. When analyzed by mailing wave ANOVA, the result for the Scale of Academic Competence is $[F(3,162) = 2.949; p \text{ value} = 0.034]$. Further analysis with the Scheffé Post Hoc

test did not yield any significant differences amongst the four mailing waves groups on the scale for Academic Competence. These data suggest it is not necessary to account for bias in the sample and we can view the sample as representative of the population from which it was drawn.

Table 1 shows that the majority of respondents reported being employed full time as their primary activity.

Table 1. Primary activity of respondents

Primary Activity	Total
Employed, full time	86.5%
Employed, part time	3.4%
Graduate/Professional school, full time	2%
Graduate/Professional school, part time	0
Additional undergraduate coursework	0
Military Service	0.7%
Volunteer activity (e.g. Peace Corps)	0
Starting/raising a family	6.1%
Other	1.4%
<i>N = 148</i>	



In order to get a better picture of the population and their college experience, respondents were asked to select whether or not they participated in an array of activities during their time at Vanderbilt University. Participation in activities was an additional characteristic identified as one that may affect alumni perception of the value of their undergraduate education. Alumni responses are captured in **Table 2**. Only one

respondent indicated that they did not participate in any of the activities listed, suggesting that we provided a diverse array of choices. However, as a result, no conclusions could be drawn by comparing students who participated in activities and those who did not due to the low number of respondents that reported not having participated in activities.

Table 2. Respondent participation in activities while at Vanderbilt University

None of the activities listed	0.7%
Intercollegiate athletics (NCAA)	6.8%
Student government	10.8%
Campus tours	11.5%
Musical/theater groups	14.9%
Student publications	16.2%
Cultural/ethnic organizations	16.2%
Intramural/club sports	23.6%
Religious/spiritual groups	27.7%
Intramural athletics	30.4%
Academic clubs, honor societies, or professional associations	45.9%
Greek organizations	48.0%
Volunteer service	71.6%
Guest speakers and campus-wide events	79.7%
Student clubs and organizations	83.8%
<i>N = 148</i>	



Table 3. Respondent Length of Time Since Bachelor’s Degree Attainment from Vanderbilt University

Length of time since graduation	Total
Within the last 5 years	1.4%
Between 6 years and 10 years ago	41.9%
Between 11 years and 15 years ago	29.7%
Between 16 years and 20 years ago	26.4%
More than 21 years ago	0.7%
<i>N = 148</i>	

Table 3 shows the length of time since respondents attained a bachelor’s degree from Vanderbilt University. The majority of respondents graduated between six and ten years ago which may influence their perception of the value of their baccalaureate educational experience. Vanderbilt University has initiated some programs recently such as Opportunity Vanderbilt which is supposed to ensure that when students graduate they are not saddled with large student loan debt (Opportunity Vanderbilt, 2016). This was a repeated theme amongst our focus groups and so we had hoped to look at whether alumni perception of the value of their degree changed with length of time since their graduation. However, Opportunity Vanderbilt began in 2008 and therefore would only apply to the cohort of

respondents that graduated within the last five years, which unfortunately is two, making it impossible to extrapolate further due to such a small sample size.

Table 4. Respondent race

Race	Total	2010
White/Caucasian	80.4%	62.7%
African American/Black	7.4%	8.0%
Asian American/Asian	5.4%	7.0%
Hispanic/Latino	4.1%	7.4%
Native American	0	0.4%
Native Hawaiian/Pacific Islander	0	
Puerto Rican American	0	
Other Latino	0	
Other	2.7%	
<i>N = 148</i>		



Table 4 shows the racial identity of all the respondents compared to the total undergraduate population for 2010 (VIRG Factbook, 2016). Additionally, 41.9 percent were male and 58.1 percent were female.

Table 5. Respondent Major

Respondent Major	Total
Biological Sciences	9.5%
Business	9.5%
Education	12.2%
Engineering	16.9%
Fine arts	2.7%
Humanities	13.5%
Physical Sciences	1.4%
Social sciences	21.6%
Other	12.8%
<i>N = 148</i>	

Table 5 shows our respondents had diverse majors and 39.2 percent had a second major which is reported in **Table 6**.

Table 6. Secondary majors of 39.2 percent of respondents

Second Major	Total
Biological Sciences	3.4%
Business	5.2%
Education	12.1%
Engineering	1.7%
Fine arts	5.2%
Humanities	32.8%
Physical Sciences	5.2%
Social sciences	24.1%
Other	10.3%
<i>N = 33</i>	

Table 6 shows that the respondents' secondary majors were also diverse. This suggests that our pilot study sample was able to capture many different perspectives from Vanderbilt University's alumni population.



Analytical Design and Findings for Study Question 1

Question 1: What elements of the student experience, based on Braxton's Eight Domains of College Student Success, do students/graduates of highly-selective research institutions value?

Analytical Design for Study Question 1

The economic benefits that accompany the completion of postsecondary education for both society and the individual is well documented. Conceptualized as a higher education pyramid consisting of many low-status, non-selective institutions at the bottom and only a few high-status, highly-selective institutions at the top. This system dictates that not all college degrees are the same, nor do all provide the same economic returns and suggests that attending a highly-selective institution provides even greater benefits for students (Reardon, Baker, & Klasik, 2012). Certainly students attending highly-selective institutions experience larger tuition subsidies, disproportionately more extensive

resources, focused faculty attention, and a disproportionate economic benefit derived as a result of attendance. Research focusing on the relationship between college selectivity and future earnings have found that students who attend higher quality colleges have better labor market outcomes (Reardon, Baker, & Klasik, 2012).

However, recent research conducted by the Gallup-Purdue study indicates that it is not the institution that matters as much as the types of experiences and student engagement that is important for subsequent well-being and success. The record increase in postsecondary attendance across all types of institutions indicate not only the perceived value of postsecondary attendance within the greater population, it also reflects the range of educational experience preferences demanded by students searching for postsecondary educational success.



Findings for Study Question 1

As described previously, the literature review and focus groups drove the construction of the scales for the domains of college student success. The survey itself consisted of eleven “root questions.” Each “root question” was a general umbrella question that applied to all the elements of the student experience within that group. All of the elements within a given “root question” grouping had the same four point Likert response scale as outlined in **Table 7** through **Table 14**. For each “root question” we included at least one element of the student experience that was associated with a specific domain of college student success, with the intent to ensure that a domain was sufficiently captured within the scale. The scales and all of their elements are explicitly stated in Table 7 through **Table 14** below.

In order to make it possible to compare the scale composite scores for Braxton’s Eight Domains of College Student Success, each scale composite score was computed by adding up all the Likert score responses for the elements of the scale and dividing by the total number of elements. By calculating the mean for the entire scale we were able to compare the scale composite scores even though they did not contain the same number of items. Reliability analysis was

also conducted on each scale. Elements were removed from the original scales in order to achieve the highest Cronbach’s alpha possible according to this analysis. Nineteen respondents (11.3 percent) of the pilot study quit the survey before completing the demographic information, suggesting that shortening the survey may improve completion rates. With this in mind, if an element’s removal did not decrease the Cronbach’s alpha of the scale, it was removed so to shorten the survey and hopefully improve completion rates for future studies. Put differently, if a scale would maintain its highest achievable Cronbach’s alpha with the removal of an element, we chose to remove it to shorten the overall length of the survey. This, in addition to the reliability analysis informed the scale refinements as described below for each scale in detail.

Table 7 through **Table 14** reference the “root question” and the “element of the student experience” in parentheses. These correspond to the survey numbering system for survey see Appendix D. The first number corresponds to the number of the root or umbrella questions which are numbered in the survey followed by a decimal and then the number noting the element of the student experience. For example, (3.2)



corresponds to the second element in the third root/umbrella question in the final survey instrument (**Appendix D**).

Table 7. Scale for Academic Attainment and the Corresponding Elements of the Student Experience.

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	Faculty allowed me to get-by without a lot of academic effort (3.2)	Not valued Somewhat valued Valued Highly valued
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	Graduating with a Vanderbilt degree is more valuable regardless of major (4.1)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Overall quality of instruction (5.2)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Out of class availability of faculty (5.3)	
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To persist and attain a degree (6.1)	Very inadequately Inadequately Generally well Very well
How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	To persist until a long-term accomplishment is achieved (7.4)	Very inadequately Inadequately Generally well Very well
How satisfied were you with each of the following aspects of campus life?	Academic Learning Community (8.12) vaguely stated	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied



To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Developing my drive to persist to achieve long term goals (10.17)	Very little or none Some Quite a bit Very much
Please indicate the importance to you, personally, of each of the following:	The collective drive of the Vanderbilt learning community to persevere until graduation (11.7)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	The sense of a learning community at Vanderbilt focused my attention on graduating (12.16)	Not valued Somewhat valued Valued Highly valued

We developed this scale on Academic Attainment for our survey and planned to include all 11 items listed in **Table 7**. However, when we performed the reliability analysis and calculated the Cronbach's alpha was 0.784. When we removed the item "faculty allowed me to get by without a lot of academic effort" and "graduating with a Vanderbilt University degree is more

valuable regardless of major" from the scale the reliability of the scale increased to a Cronbach's alpha of 0.814. (Of note, the first item was recoded prior to analysis). Removal of any additional items from the scale would result in a lower Cronbach's alpha, so we recommend keeping the remaining nine questions.



Table 8. Scale for Acquisition of General Education and the Corresponding Element of the Student Experience

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	The university had a large diverse population where everyone did their own thing (3.5)	Not valued Somewhat valued Valued Highly valued
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	People were willing to participate and learn more about different cultures and diverse views (3.6)	Not valued Somewhat valued Valued Highly valued
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	Students learn more at Vanderbilt because of the quality of instruction (4.7)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Availability of courses I wanted to take outside of my major (5.16)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Cultural and fine arts programming (5.17)	
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To understand international perspectives on economic, political, social and cultural issues (6.10)	Very inadequately Inadequately Generally well Very well
	To gain an understanding of and appreciation for the arts (6.12)	



How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	The ability to get along with people of diverse backgrounds and perspectives (7.10)	Very inadequately Inadequately Generally well Very well
	Awareness of contemporary issues in society and technology, and appreciation of their complexity of cause and consequences (7.11)	
How satisfied were you with each of the following aspects of campus life?	Guest speakers and campus-wide events (8.1)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Cultural and fine arts programming (8.7)	
In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Acquiring a broad general education (9.2)	No gain/progress Some gain/progress Generally well Very well
	Becoming aware of different philosophies, cultures, and ways of life (9.6)	
	Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.) (9.8)	
To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Relating well to people of different races, nations, and religions (10.9)	Very little or none Some Quite a bit Very much
	Placing current problems in historical/cultural/philosophical perspective (10.13)	
	Critical appreciation of art, music, literature, and drama (10.15)	
Please indicate the importance to you, personally, of each of the following:	Helping to promote racial understanding of other countries and cultures (11.6)	Not important Somewhat important Very important Essential



Based on your educational experience at Vanderbilt University, please rate the following:	Academic support of peers, faculty, and staff (12.3)	Not valued Somewhat valued Valued Highly valued
	The high level of academic preparation of my peers (12.5)	
	The sense of a learning community at the institution (12.12)	

During the initial construction of the survey instrument, all 21 items listed in **Table 8** were included in the scale for Acquisition of General Education, which resulted in a Cronbach's alpha of 0.897. However, when the item on "instruction quality" at Vanderbilt University and the item on "promotion of racial understanding of other countries and cultures" were removed from the scale, the reliability of the scale increased to a Cronbach's alpha of 0.902. In order to achieve the highest Cronbach's alpha with the optimal number of items we attempted to remove "the university had a large diverse

population where everyone did their own thing" from the scale, however removal of any additional items from the scale results in a lower Cronbach's alpha, so we recommend keeping the remaining 19 questions, unless the survey length is of major concern.



Table 9. Scale for the Development of Academic Competence and the Corresponding Elements of the Student Experience

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	The academic preparation of my peers, drove my determination to succeed in the classroom (3.1)	Not valued Somewhat valued Valued Highly valued
	Professors were national leaders active in creating new knowledge (3.11)	
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	My Vanderbilt degree better prepared me for my career than peers from less selective institutions (4.4)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Overall satisfaction with my undergraduate education at Vanderbilt University (5.1)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Overall quality of instruction within a major (5.4)	
	Quality of advising within major (5.8)	
	Availability of academic support and assistance (5.15)	
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To use the knowledge, ideas, or perspectives gained from my major field (6.5)	Very inadequately Inadequately Generally well Very well
	To communicate effectively (6.6)	
	For graduate or professional school when I compare myself with others in my graduate/professional degree program(s)? (6.15)	



How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	To communicate in an efficient and effective manner (7.5)	Very inadequately Inadequately Generally well Very well
How satisfied were you with each of the following aspects of campus life?	Level of academic expectations (8.13)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Communicating effectively (9.1)	No gain/progress Some gain/progress Generally well Very well
	Acquiring knowledge about a particular field of study (9.3)	
To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Acquiring in-depth knowledge of a field or discipline (10.4)	Very little or none Some Quite a bit Very much
	Communicating effectively (10.5)	
	Conducting scholarly research (10.11)	
	Understanding the process of science and experimentation (10.14)	
Please indicate the importance to you, personally, of each of the following:	Becoming an authority in my field (11.1)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	The level of professional achievement of past graduates (12.2)	Not valued Somewhat valued Valued Highly valued
	The deep level interest faculty members had for my personal development and educational opportunities (12.4)	



In developing the survey we intended to include all 21 items listed in **Table 9** in the scale for the Development of Academic Competence. Using the data from our pilot study we assessed the scale's reliability with these 21 items and calculated a Cronbach's alpha of 0.870. However, when we removed the item asking whether it was important for alumni to "become an authority in my field" the Cronbach's alpha improved to 0.874. The removal of any additional items would reduce the Cronbach's alpha. However, there are four items in this scale that refer to effective communication. We included all these items to ensure that every domain was represented within a given root question, however since there were 19 people (11.4 percent) that did not complete the entire survey, it may be advantageous to reduce the number of redundant items within the scales. Using SPSS software we calculated an ANOVA which indicated that all the four questions were the same ($p < 0.0001$). This result supports the removal of several of the questions. We recommend keeping item 7.5 and feel that the same sentiment is captured in the other items (6.6, 9.1 and 10.5) and

would have recommended their removal, except that it reduced the Cronbach's alpha to 0.857. While this does indicate good reliability amongst the items in the scale, while the instrument is still in the development stage we recommend maintaining the highest Cronbach's alpha possible, therefore we recommend keeping all 20 remaining items including the three different versions of effective communication.

"When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are..."



Table 10. Scale for Development of Cognitive Skills and Intellectual Disposition and the Corresponding Elements of the College Experience.

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	Other students pushed me to perform at my best academically (3.3)	Not valued Somewhat valued Valued Highly valued
	School funded opportunities for research (3.10)	
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	Professors took a vested interest in me and my success (4.3)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Independent study/research (5.5)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Opportunities to participate in research with a faculty member (5.7)	
	Level of intellectual excitement on campus (5.13)	
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To think analytically and logistically (6.2)	Very inadequately Inadequately Generally well Very well
	To acquire new skills and knowledge on my own (6.3)	
	To judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods, and reasoning (6.4)	
	To understand and apply quantitative principles and methods (6.9)	
	To understand the scientific method and how scientists test hypotheses (6.13)	



How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	The ability to evaluate and choose between alternative courses of action (7.7)	Very inadequately Inadequately Generally well Very well
How satisfied were you with each of the following aspects of campus life?	Freedom to pursue my intellectual interest (8.14)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Analyzing quantitative problems (understanding probabilities, proportions, etc.) (9.5)	No gain/progress Some gain/progress Generally well Very well
	Solving complex real-world problems (9.9)	
	Thinking analytically and logically (9.10)	
To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Thinking critically (10.1)	Very little or none Some Quite a bit Very much
	Judging the merits of arguments based on their sources, methods, and reasoning (10.2)	
	Creating original ideas and solutions (10.7)	
	Understanding and using quantitative reasoning and methods (10.8)	
Please indicate the importance to you, personally, of each of the following:	My Vanderbilt experiences have enabled me to think more critically about complex problems (11.8)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	The high level of student engagement and learning (12.7)	Not valued Somewhat valued Valued Highly valued



Initially, all 22 items listed in **Table 10** were included in the scale for Development of Cognitive Skills and Intellectual Disposition and calculated a Cronbach's alpha of 0.897. However, it became apparent that if the item referring to "school funded opportunities for research" was removed then the Cronbach's alpha would increase to 0.900. There were four additional items that if removed would maintain the same Cronbach's alpha of 0.900. Because several participants did not complete the survey, consideration should be

given to shortening the instrument. This could best be accomplished by removing the following four items: 1) Other students pushed me to perform at my best academically 2) Professors took a vested interest in me and my success 3) Independent study/research 4) Opportunities to participate in research with a faculty member. We recommend removing these items from the scale to improve reliability of the instrument and shorten the survey.

Table 11. Scale for Occupational Attainment and the Corresponding Elements of the Student Experience

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	Alumni and professor networking connections (3.7)	Not valued Somewhat valued Valued Highly valued
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	My Vanderbilt degree provided me with career opportunities that were unavailable to peers from less-selective institutions (4.5)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Counseling I received helped me to decide on my chosen career (5.9)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied



Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To use information technology in intellectual and/or professional pursuits (6.8)	Very inadequately Inadequately Generally well Very well
	For my chosen career path? (6.16)	Very well
How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	To use my creativity to excel in my chosen career (7.9)	Very inadequately Inadequately Generally well Very well
How satisfied were you with each of the following aspects of campus life?	Career services (8.15)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Acquiring knowledge and skills applicable to a specific job or type of work (9.4)	No gain/progress Some gain/progress Generally well Very well
To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Acquiring career- or work-related knowledge and skills (10.12)	Very little or none Some Quite a bit Very much
Please indicate the importance to you, personally, of each of the following:	Being financially secure (11.4)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	The reputation of the institution and the ability to open doors for employment (12.8)	Not valued Somewhat valued Valued Highly valued

With all items included from **Table 11**, the Cronbach's alpha is 0.812 but we recommend removing the item "being financially secure" for an improvement to 0.820. We continued

to remove items until we were able to achieve a Cronbach's alpha of 0.836 with seven items remaining. We removed the following items from the scale:



1) Alumni and professor networking connections 2) My Vanderbilt University degree provided me with career opportunities that were unavailable to peers

from less-selective institutions 3) The reputation of the institution and the ability to open doors for employment.

Table 12. Scale for Personal Development and the Corresponding Elements of the Student Experience

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	My experience at Vanderbilt University opened more doors for me than my major or degree (3.8)	Not valued Somewhat valued Valued Highly valued
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	My experiences at Vanderbilt have enabled me to actively participate in the world around me (4.8)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Opportunities for personal growth and development (5.12)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Social life on campus (5.14)	
	Opportunities to interact with diverse individuals (5.20)	
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To develop my personal identity (6.14)	Very inadequately Inadequately Generally well Very well
How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	Self-understanding (7.6)	Very inadequately Inadequately Generally well Very well
	Ethical standards (7.8)	



How satisfied were you with each of the following aspects of campus life?	Sense of community while I lived on campus (8.3)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Religious/spiritual life (8.8)	
In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Developing my own values and ethical standards (9.7)	No gain/progress Some gain/progress Generally well Very well
	Understanding myself, my abilities, interests, and personality (9.11)	
To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Constructively resolving interpersonal conflicts (10.10)	Very little or none Some Quite a bit Very much
	Reading or speaking a foreign language (10.16)	
Please indicate the importance to you, personally, of each of the following:	Helping others who are need (11.5)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	The professional level of alumni mentors (12.9)	Not valued Somewhat valued Valued Highly valued
	The strong alumni connections and their willingness to help graduates (12.10)	

Initially all 17 items listed in **Table 12** were included in the scale for Personal Development with a resulting Cronbach's alpha of 0.852. However, removing "Reading or speaking a foreign language" and "helping others who are in need" increased the Cronbach's alpha increase to 0.876. Reducing the number of items to 13 by removing "the professional level of alumni mentors" and "the strong alumni

connections and their willingness to help graduates" the Cronbach's alpha increases to 0.882. However, reliability testing still indicated that the Cronbach's alpha could be further improved by removing "my experiences at Vanderbilt University opened more doors for me than my major or degree" and "religious/spiritual life". The Cronbach's alpha for these 11 items is 0.886.



Table 13. Scale for Personal Accomplishment and the Corresponding Elements of the Student Experience

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	School funded opportunities for travel and entertainment (3.9)	Not valued Somewhat valued Valued Highly valued
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	My extracurricular achievements have been invaluable to my success (4.7)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Study abroad opportunities (5.6)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Internship Opportunities (5.10)	
	Opportunities to participate in extracurricular activities (5.11)	
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To achieve accomplishments beyond the classroom through extracurricular activities (6.7)	Very inadequately Inadequately Generally well Very well
How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	To serve in position of major responsibility (7.3)	Very inadequately Inadequately Generally well Very well
How satisfied were you with each of the following aspects of campus life?	Student clubs and organizations (8.2)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Student government (8.6)	
	Greek life (8.9)	
	Non-Greek life (8.10)	



In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Gaining the ability to set and accomplish personal goals (9.14)	No gain/progress some gain/progress Generally well Very well
To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Developing goal setting capabilities (10.18)	Very little or none Some Quite a bit Very much
Please indicate the importance to you, personally, of each of the following:	Obtaining recognition from my colleagues for contributions to my special field (11.2)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	Institutional wide pride and support for athletic teams regardless of record (12.11)	Not valued Somewhat valued Valued Highly valued
	The academic quality of peer students that pushed me to achieve at even higher levels (12.13)	

Initially all 16 items listed in **Table 13** were included in the scale for the Domain of Personal Accomplishment and calculated a Cronbach's alpha of 0.785. However, the analysis indicated that removing "obtaining recognition from my colleagues for contributions for my special field" would increase the Cronbach's alpha so that item was removed resulting in an alpha of 0.799. Further analysis indicated that removal of "school funded opportunities for travel and

entertainment" would further improve the scale. That item was removed and the resulting alpha was 0.800. Analysis indicated that the removal of "my extracurricular achievements have been invaluable to my success" would have no effect on the Cronbach's alpha however when it was removed from the scale and recalculated the alpha had decreased to 0.798 therefore that item was retained keeping 14 items in the scale.



Table 14. Scale for Preparation for Adulthood and Citizenship and the Corresponding Elements of the Student Experience

Root Question	Element of the student experience	Response Scale
When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:	The university had a small, learning community where I felt connected to everyone (3.4)	Not valued Somewhat valued Valued Highly valued
Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:	My Vanderbilt experiences prepared me to be a leader (4.6)	Not important Somewhat important Important Highly important
Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?	Student voice in campus policies (5.18)	Very dissatisfied Generally dissatisfied
	Connection with the Nashville community (5.19)	Generally satisfied Very satisfied
Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:	To develop habits such as meeting deadlines, multitasking, and task completion (6.11)	Very inadequately Inadequately Generally well Very well
How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:	The ability to work as a member of a team or group (7.1)	Very inadequately Inadequately Generally well
	Leadership skills (7.2)	Very well
How satisfied were you with each of the following aspects of campus life?	Climate for ethnic/racial diversity of the campus (8.4)	Very dissatisfied Generally dissatisfied Generally satisfied Very satisfied
	Climate for LGBTQ students on campus (8.5)	
	Connection to alumni network (8.11)	
In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?	Acquiring knowledge of government (9.13)	No gain/progress some gain/progress Generally well Very well



To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?	Functioning effectively as a member of a team (10.3)	Very little or none Some
	Leadership skills (10.6)	Quite a bit Very much
Please indicate the importance to you, personally, of each of the following:	Raising a family (11.3)	Not important Somewhat important Very important Essential
Based on your educational experience at Vanderbilt University, please rate the following:	My Vanderbilt experience has enabled me to readily share my ideas (12.14)	Not valued Somewhat valued
	My undergraduate experiences have prepared me to lead a group (12.15)	Valued Highly valued

Initially we included all 16 items listed in **Table 14** for the scale on Preparation of Adulthood and Citizenship and calculated a Cronbach’s alpha of 0.842. However the analysis recommended taking out “raising a family” from the scale which increased the Cronbach’s alpha to 0.853. The following items, “to develop habits such as meeting deadlines, multitasking, and task completion,” “climate for LGBTQ students on campus,” “climate for ethnic/racial diversity on campus,” “acquiring knowledge of government,” “student voice in campus policies,” and “connection with the Nashville community”, were removed in order to

improve the Cronbach’s alpha to 0.874 for the remaining nine items. **Table 15** is a summary of our original student success scales, with the associated number of items and Cronbach’s alphas. As discussed, we reduced the number of items in each scale to improve the number of respondents who complete the entire survey and also improve the reliability of the scales themselves. The improved reliability scales are depicted in **Table 16**.

However, when items were removed as described for each scale, the reliability as illustrated by the Cronbach’s alpha improved to the values shown in **Table 16**.



Table 15. Synopsis of Original Reliability for the Scales for the Eight Domains of College Student Success

Scale	Items	Cronbach's α
Academic Attainment	11	0.784
Acquisition of General Education	21	0.897
Academic Competence	21	0.870
Development of Cognitive Skills & Intellectual Disposition	22	0.897
Occupational Attainment	11	0.812
Personal Development	17	0.852
Personal Accomplishment	16	0.785
Preparation for Adulthood & Citizenship	16	0.842

Table 16. Synopsis of Improved Reliability Scales for the Eight Domains of College Student Success

Scale	Items	Cronbach's α
Academic Attainment	9	0.814
Acquisition of General Education	19	0.902
Academic Competence	20	0.874
Development of Cognitive Skills & Intellectual Disposition	17	0.900
Occupational Attainment	7	0.836
Personal Development	11	0.886
Personal Accomplishment	14	0.800
Preparation for Adulthood & Citizenship	9	0.874



Table 17. Computed Composite Scores for the Original Student Success Scales

Academic Attainment	3.3758
Academic Competence	3.2699
Development of Cognitive Skills & Intellectual Disposition	3.2391
Personal Development	3.1065
Occupational Attainment	3.0748
Preparation for Adulthood & Citizenship	3.0666
Acquisition of General Education	2.9854
Personal Accomplishment	2.9674
<i>N</i> = 166	

Without adjusting any of the scales to maximize reliability, **Table 17** shows the computed composite score for each scale of the domains of college student success from our respondent pilot data. By computing the mean for each scale, we take into account the alumni responses without penalizing any of the scales for including different numbers of elements of the student experience attributed to them. As one may expect, the Academic Attainment domain of student success appears to have the highest scale composite score amongst the students at this highly-selective institution. The domain of Academic Competence also has high composite score on student perception and may have some overlap within the alumni responses. It is important to note that as show in **Table 7** through **Table 14** all of the

scale elements were stated in the positive direction using a four point Likert scale for each element of the student experience. All of these scales have means of three or above indicating that they are all strongly intertwined and have a strong impact on Vanderbilt University alumni's perception of the value of their degree.

Table 18. Computed Composite Scores for College Student Success Scales with Increased Reliability

Reliability Corrected Scale	Total
Development of Cognitive Skills & Intellectual Disposition	3.3694
Academic Attainment	3.3183
Academic Competence	3.2938
Personal Development	3.2358
Preparation for Adulthood & Citizenship	3.1836
Personal Accomplishment	3.1200
Occupational Attainment	3.0112
Acquisition of General Education	2.9946
<i>N</i> = 166	

Again in **Table 18** the top three domains with the highest computed composite scores are Development of Cognitive Skills and Intellectual Disposition, Academic Attainment and Academic Competence. This suggests that they are most valued by our alumni respondents. This is not surprising, as we discussed in the introduction, Vanderbilt University is a highly-selective



private institution that has become increasingly more academically selective in recent years. It makes sense that the scales focused on academic competence, attainment and cognitive skills would be extremely high amongst this group of alumni. It follows that these alumni to be very focused on the

intangible value of their education both in terms of their own personal growth and development. They also place a lot of value in Vanderbilt University's preparation for adulthood and recognize their responsibility to conscientious citizens within society.

Summary of Findings – Question 1:

Question 1: What elements of the student experience, based on Braxton's Eight Domains of College Student Success, do students/graduates of highly-selective research institutions value?

Vanderbilt University alumni value the domains of student success of the Development of Cognitive Skills and Intellectual Disposition, Academic Attainment, and Academic Competence the most overall. However, less value is attached to personal development and the acquisition of general education.



Analytical Design and Findings for Study Question 2

Question 2: Does alumni perception “value” vary based on alumni characteristics such as career aspirations, major, and length of time since graduation)

The economic benefits that accompany the completion of postsecondary education for both society and the individual is well documented. Conceptualized as a higher education pyramid consisting of many low-status, non-selective institutions at the bottom and only a few high-status, highly-selective institutions at the top. This system dictates that not all college degrees are the same, nor do all provide the same economic returns and suggests that attending a highly-selective institution provides even greater benefits for students (Reardon, Baker, and Klasik, 2012). Certainly students attending highly-selective institutions experience larger tuition subsidies, disproportionately more extensive resources, focused faculty attention, and a disproportionate economic benefit derived as a result of attendance. Research focusing on the relationship between college selectivity and future earnings have found that students who attend higher quality colleges have better labor market outcomes (Reardon, Baker, and Klasik, 2012).

However, recent research by the Gallup-Purdue study indicate that it is not the institution that matters as much as the types of experiences and student engagement that is important for subsequent well-being and success. The record increase in postsecondary attendance across all types of institutions indicate not only the perceived value of postsecondary attendance within the greater population, it also reflects the range of educational experience preferences demanded by students searching for postsecondary educational success.

Findings for Study Question 2

Study question one examined whether the perceived “value” of education varied based on alumni characteristics (career aspirations, major, length of time since graduation) We defined these alumni characteristics as career aspirations (defined as whether respondents were working in their field of study, a related field, or an unrelated field), student majors, and length of time since graduation.



Career Aspirations

Conceptually it made more sense to group the alumni that were working in their major or in a related field together and compare them to the alumni that were working in an unrelated field. Alumni working in their field or related field were compared to alumni working in an unrelated field. The scales of the domains of student success were the test variables while the grouping variable was

whether they were working in their field. **Table 19** shows the composite scores of each group for each scale and the t statistic. The findings of **Table 19** indicates that those alumni working in their major or related field have higher composite scores in all eight of the domains of college student success than those working in an unrelated field, suggesting that they valued those elements embodied in the domains more.

Table 19. Comparison of Composite Scores from Respondents Currently Working in a Position in/or Related to Their Undergraduate Major and Those in an Unrelated Position

Scale Variable	Major/ Related	Unrelated to Major	T
Academic Attainment	3.3978	3.2256	2.394*
Acquisition of General Education	3.0646	2.9237	1.804*
Academic Competence	3.3871	3.2041	2.775*
Development of Cognitive Skills & Intellectual Disposition	3.4687	3.2889	2.450*
Occupational Attainment	3.2083	2.7811	4.432***
Personal Development	3.3562	3.0975	2.874**
Personal Accomplishment	3.1918	3.0337	2.306*
Preparation for Adulthood & Citizenship	3.2684	3.0757	2.119*
<i>N = 147; *p<0.05, **p<0.005, ***p<0.0005</i>			

Major

Considering our study question, “Does value vary based on alumni characteristics?” We wanted to determine whether alumni perception of value, as measured by our domains of student success scales, varied across a diverse group of majors. One of our

survey questions asked alumni to classify their major as one of eight options or select “other”.

Table 5 (Respondent Major), shows the eight major responses available to



respondents. A Levene test for homogeneity of variances was performed and four of the eight scales for student success were found to have statistically significant variances indicating heterogeneity of variances. These scales were: Academic Attainment, Development of Cognitive Skills and Intellectual Disposition, Occupational Attainment, and Personal Development. Because they were shown to have statistically significant differences in variances, we chose to run the Welch and Brown-Forsythe tests which are typically accurate when homogeneity of variance is not true, which we know is the case because of the Levene test results. After performing the robust test of equality of means the Brown-Forsythe test found a significant difference in the scale of Occupational Attainment. $F(8, 59.827) = 2.293; p < 0.033$.

Post hoc analysis was conducted using the Games-Howell procedure because it did not rely on the assumption of equal variances. However, using the Games-Howell analysis did not yield any significant differences amongst the majors on the occupational attainment scale.

For the remaining four scales, Acquisition of General Education, Academic Competence, Personal Accomplishment and Preparation for Adulthood and Citizenship, their Levene tests did not show significance, so an ANOVA was performed. All respondent majors were then used as the independent variables in an ANOVA analysis to determine whether composite scale scores (dependent variable) for the student success scales varied according to major.

Table 20. ANOVA analysis of Alumni Major and Composite Score on Student Success Scales

Student Success Scale	F statistic (8, 139)	p
Acquisition of General Education	1.336	0.230
Academic Competence	1.326	0.236
Personal Accomplishment	1.991	0.052
Preparation for Adulthood	2.572	0.012*
N = 148; *p<0.05, **p<0.005, ***p<0.0005		
All eight majors were analyzed as the independent variables (x) for the ANOVA analysis, while the scales for college student success served as the dependent variables (y)		



As indicated in **Table 20**, only the composite scores for the scale for the Preparation for Adulthood and Citizenship have any statistically significant differences. However, Scheffe post hoc analysis did not indicate any statistical significance in the composite scores for Preparation for

Adulthood and Citizenship amongst the majors. **Table 21** shows the composite scores for domain of student success according to major. It is unclear whether a larger sample of respondents would improve the ability to distinguish between the majors from the domains of student success scales.

Table 21. Composite Scores by Major for Each Domain of Student Success

Major	Academic Attain	Acquisition of Gen Ed	Academic Compet	Dev of Cog Skills	Occ Attain	Personal Develop	Personal Accomp	Prep for Citizen
Biological Sciences	3.13	2.87	3.13	3.27	2.91	2.95	2.89	2.90
Business	3.33	2.94	3.36	3.50	3.20	3.35	3.28	3.27
Education	3.44	3.06	3.48	3.45	3.37	3.31	3.18	3.41
Engineering	3.25	2.85	3.33	3.53	3.16	3.22	3.05	3.33
Fine Arts	3.65	3.18	3.46	3.20	3.27	3.01	3.13	3.69
Humanities	3.18	2.90	3.15	3.17	2.64	3.04	2.96	2.86
Physical Sciences	3.39	3.11	3.15	3.38	3.07	3.45	3.50	3.17
Social Sciences	3.42	3.17	3.34	3.42	2.94	3.45	3.24	3.18
Other	3.40	3.11	3.34	3.41	3.08	3.29	3.19	3.21

While there were significantly different scale composite scores obtained two of the scales, Occupational Attainment and Preparation for Adulthood and Citizenship, additional post hoc analyses did not yield significant differences between any majors. It may be necessary for future iterations of the instrument to further stratify the majors in order to see a difference (e.g. humanities can cover a wide range of majors from languages, literature, philosophy, etc.) and the large number of respondents (12.8%) whose major was not listed is striking.

However, VIRG has the ability to track what major their alumni graduated in and conduct further analysis on their composite scores, so this may not be an issue.



Length of Time Post-Baccalaureate Degree Attainment

In anticipation that alumni perception of the value of their undergraduate education may vary depending on how long ago they graduated, we considered that recent graduates may not be far enough in their career to truly appreciate their college experience. On the other hand, individuals who graduated decades before may only have fond memories of the experience without concrete examples that helped them throughout the years. To test whether alumni perception of value as measured by our scales for the domains of college student success varied with respect to length of time since degree attainment we asked respondents to choose from one of five categories (< 5 years ago, 6-10 years ago, 11-15 years ago, 16-20 years ago, and 20+ years ago). We then conducted an ANOVA analysis with the number of years out of school as the independent variable and the composite score for each scale for student success as the dependent variable. The category of graduating 21+ years ago was excluded from analysis because it only contained one respondent. The Levene test for homogeneity of variances was not significant indicating that it was an ANOVA

test was appropriate. **Table 22** shows the results of the ANOVA analysis. There were no significant differences in composite scores amongst the groups.

On the other hand, individuals who graduated decades before may only have fond memories of the experience without concrete examples that helped them throughout the years.



Table 22. ANOVA analysis with years since graduation as the independent variable and composite score for scale for student success as dependent variable

Scale	
Academic Attainment	F stat (3, 143) = 0.666 p<0.574
Acquisition of General Education	F stat (3, 143) = 0.789 p<0.502
Academic Competence	F stat (3, 143) = 0.207 p<0.891
Development of Cognitive Skills & Intellectual Disposition	F stat (3, 143) = 0.262 p<0.852
Occupational Attainment	F stat (3, 143) = 0.262 p<0.674
Personal Development	F stat (3, 143) = 0.729 p<0.536
Personal Accomplishment	F stat (3, 143) = 0.991 p<0.399
Preparation for Adulthood and Citizenship	F stat (3, 143) = 0.364 p<0.779
<i>Total N=147; The 20+ years since graduation group only contained one respondent so it was excluded from this analysis</i>	
All four remaining year groupings (<5 years, 6-10 years, 11-15 years, 16-20 years) were analyzed as the independent variables (x) for the ANOVA analysis, while the scales for college student success served as the dependent variables (y)	



We conducted further analysis focused on length of time since graduating from Vanderbilt University because the general perception of the institution is that it is becoming more and more selective in its admissions, as they have demonstrated through increasing standardized test scores, high school GPA, and high school involvement. We anticipated that this may result in different success scale composite scores depending on when a respondent graduated from Vanderbilt University. For example, as students' test scores and GPAs increase we may expect their value and success as measured by the "Academic Competence" scale to increase and for this difference to be statistically significant when comparing graduation cohorts. A student's t-test was also performed to see if there was a difference in composite scores for the scales of student success between those respondents who graduated within the last ten years and everyone else who responded, and the result was there was no statistically

significant difference. It is unclear whether a larger sample of respondents would improve the ability to distinguish between the years since graduation groupings from the domains of student success scales. One reason this may be the case is due to the highly-selective nature of Vanderbilt University. Again this may be due to the highly-selective admissions and rigorous coursework, helping students to be successful which then translates to our domains of student success. Alternatively, as discussed earlier, the population sample used in this study did not contain many of the students who would have been able to take advantage of the newly enacted Opportunity Vanderbilt which ensures that students graduate with little to no student loans. In that this program has increased the selectivity of the institution even further, samplings these respondents may have shown a difference between the first two cohorts.



Summary of Findings – Study Question 2

Question 2: Does alumni perception of “value” vary based on alumni characteristics? (career aspirations, major, length of time since degree attainment)

Perceived value varied based on alumni characteristics in the following ways:

- Alumni who were working in their major field of study or in a related field have higher composite scores in all the domains of college student success than those working in an unrelated field, suggesting they valued those elements of the student experience embodied by the domains more.
- There are no statistically significant differences in composite scores among the eight majors identified in this pilot study. It is unclear whether further stratification of the majors may yield any insight into whether perceived value varies across majors.
- There are no statistically significant differences in alumni composite scores based on length of time out of school.



Limitations to Study Questions 1 and 2

While both study questions were addressed and yield significant results, we have identified five limitations to this study. The following five imitations temper our recommendations and conclusions, however, further research may be able to address these limitations and make our results more generalizable.

1. The scope of this project was originally to design a survey instrument that could be used to determine the intangible value of a baccalaureate education and distinguish those earned from highly-selective and less-selective institutions. However, because the piloting of the survey instrument was limited to Vanderbilt University alumni, we do not know what kind of effect that will have on the instrument itself. The limitation to only Vanderbilt University alumni makes it impossible to draw any comparisons across different institutions or generalize the results beyond those of Vanderbilt University alumni.
2. We are also not sure that the pilot data can be generalized to Vanderbilt University alumni because we only had a response rate of 13 percent. Such a low response rate makes it difficult to determine that whether the individuals who responded to our survey are representative of the alumni as a whole or there is something specific about their motivations that made them respond. However, mailing wave analyses indicated that are no statistically significant difference between those individuals who responded after our first request and those who responded later after subsequent reminders. This suggests that the obtained sample is representative of the population from which it was drawn.
3. While the survey instrument is targeted toward alumni, most of the questions ask them about their undergraduate experiences. It is not clear what effects this may have on the data. As discussed, there only two



recent graduates (less than 5 years post baccalaureate) that responded to the survey. Are alumni able to accurately recall all the elements of the student experience that make up the scales for the domains of student success? Our data show that there was no statistically significant difference between scale composite scores of those respondents who graduated in five year increments, which may be due to the small sample size of the pilot study.

4. Only five undergraduate students were able to participate in the student tour guide focus group. While these

students did have diverse majors, backgrounds and interests, we may not have been able to cover all the perspectives present in Vanderbilt University students. This may have resulted in some crucial questions being left out of the scales of the eight domains of student success.

5. Similarly, because the parent focus group was comprised of parents of four students and alumni at Vanderbilt University, it is possible that not all perspectives were exhausted due to the low number of participants.



Conclusions

Study Question 1:

What elements of the student experience, based on Braxton's Eight Domains of College Student Success do students/graduates of highly-selective research institutions value?

Vanderbilt University alumni value the domains of student success of the Development of Cognitive Skills and Intellectual Disposition, Academic Attainment, and Academic Competence the most overall. This is not surprising due to the selective nature of Vanderbilt University admissions process that highlights academic achievements. However, Vanderbilt alumni score high on all of the domains of student success with a mean value of 3 or higher for all except Acquisition of General Education (2.9946) on a four point Likert scale. This suggests that alumni perceive that Vanderbilt University has invested significantly in their student's success through programming and enhancements to the student experience.

Study Question 2:

Does alumni perception of "value" vary based on alumni characteristics? (career aspirations, major, length of time since graduation)

Based on the findings, value does vary based on alumni characteristics. In the pilot study career aspirations has the most significant effect on value based on Braxton's Eight Domains of College Student Success. Alumni working in their field were much more likely to have scored higher on the scales of student success, with the largest difference between them and those not working in their field of study, revealed in the domain of Occupational Attainment. We were unable to draw any conclusions on whether perception of value varies with respect to major or length of time since degree attainment from our pilot data, additional research is necessary to make any determinations.



Recommendations for Vanderbilt University

Recommendations for Further Research

We have identified two recommendations for further research on the elements of the student experience students/graduates at highly-selective universities value most and recommend the following:

Conduct a longitudinal study.

By asking alumni what they valued after graduation, they may not have had a clear recollection of how useful or important each element was in determining value during their time at the institution. As a result, we cannot conclude whether students value the same things as alumni and vice versa making it difficult for the institution to respond with programming, or services, in order to increase perceived value. One way to overcome this threat to reliability is to conduct a longitudinal student study beginning in the freshman year. By selecting a cohort of students and administering the survey developed in this study to those students each year and at specific time intervals after they graduate, a more accurate account of what students and

alumni value at different points in time will be gathered and available for analysis.

Administer the survey to students and alumni at other highly-selective research one institutions.

The data obtained from the pilot study was conducted only with Vanderbilt University alumni, the results cannot be generalized to all highly-selective research one institutions. One way to make the data more generalizable is by administering the survey instrument to students and alumni at other highly-selective research one universities to determine if the elements that students and alumni value most remain consistent across similarly selective institutions.

Administer the survey to students and alumni at less selective institutions.

In order to determine if those elements of value identified by students and alumni at highly-selective research one institutions are unique to those types of institutions, it will be necessary to administer the survey to



students and alumni at less-selective institutions. A comparison of the data obtained across all types of institutions will help researchers understand if and how perceived value differs across institution type.

Recommendations for Practice

- **A**s a highly-selective institution, Vanderbilt University is able to attract students who excel in academics and are very academically focused. We recommend they continue to focus their efforts on their vision for a small learning community. The learning community was very prominent in discussions with students and parents, and is supported by the scales of student success valued most at Vanderbilt University.
- **V**anderbilt University alumni scored very high amongst all of the scales of student success. It is imperative that Vanderbilt University continue to provide the support services and activities which enrich the student experience that has been instrumental to their success, as reflected in the high composite scores across all domains.
- **A**lumni working in their field of study value Braxton's Domains of Student Success more than those who do not. Because of this, we recommend Vanderbilt University focus on initiatives through career services to help students get jobs in their fields upon graduation.



Closing Thoughts

The enormous economic and social advantages of a postsecondary education has been well researched and widely documented. The United States higher education system is vastly diverse and highly-stratified providing a narrowly defined system of institutional expertise and associated ranking. This system seemingly dictates that not all college degrees are the same and neither do all provide the same economic returns. Studies have revealed that attendance at a highly-selective institution brings with it larger tuition subsidies, extensive resources, increased amount of focused faculty attention, and a disproportionate economic benefit derived as a result of attendance. These factors alone provide students with a strong incentive to attend the most highly-selective institution they can and as a result the competition for admission has intensified greatly. However the types of experiences and student engagement important for subsequent well-being and success that are valued by these students are far less documented. This increasingly competitive and accomplished potential student group led Vanderbilt University's Institutional Research Group (VIRG) to question what students at highly-

selective research one institutions value about their educational experience and if those experiences lead to later success.

This study found that Vanderbilt University alumni valued the student success domains of Development of Cognitive Skills and Intellectual Disposition, Academic Attainment, and Academic Competence the most overall. Additionally, the study found those alumni working in their major or related field of study had higher composite scores in all the domains than those working in an unrelated field.

Although somewhat limited by time this capstone research study has yielded some key findings that provide insight into the type of educational experiences that alumni of a highly-selective research one institution value overall as well as those that selected to attend based on academic reputation. These findings also provide Vanderbilt University opportunities to develop additional student educational experiences that build upon those identified as highly valued by alumni and supported by Braxton's Eight Domains of College Student Success.



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APPENDIX A

Focus Group Protocol

Focus Group Structure and Format

1. Welcome:

Facilitators will introduce themselves and review the purpose and format of the focus group discussion activity.

Review the following:

- Who we are and what we're trying to do
- What will be done with this information
- Why we asked you to participate
- Ask the group if there are any questions before we get started, and address those questions.

2. Explanation of the process

Ask the group if anyone has participated in a focus group before. Explain that focus groups are being used more and more often in research.

About focus groups

- Not trying to achieve consensus, we're gathering information
- In this project, we are doing both questionnaires and focus group discussions. The reason for using both of these tools is that we can get more in-depth information from a smaller group of people in focus groups. This allows us to understand the context behind the answers given and provide insight into the reason for institutional selection based on perceived value of the education experience.

Logistics

- Focus group will last about 45 minutes
- Feel free to move around and make yourself comfortable
- Turn in group and individual answer sheets to facilitators prior to leaving

3. Ground Rules

Ask the group to suggest some ground rules. After they brainstorm some, make sure the following are on the list.

- Everyone should participate.
- Information provided in the focus group must be kept confidential
- Stay with the group and please don't have side conversations
- Turn off cell phones if possible
- Have fun



4. Materials and Supplies

- Large group answer sheets (one per group)
- Small individual answer sheets (one per person)
- Pens/Pencils for each participant

Conduct the Focus Group Session

- Set a positive tone.
- Make sure everyone is heard; draw out quieter group members.
- Probe for more complete answers.
- Monitor your time closely – it is your job to make sure you are on track.
- Don't argue a point with a participant, address it later if you must.

Focus Group Conclusion

That concludes our focus group. Thank you so much for coming and sharing your thoughts and opinions with us. If you have additional information that you did not get to say in the focus group, please feel free to add it to your individual answer sheet.



APPENDIX B

Student Focus Group Transcription

The participants

Gender: 2 females, 3 males

Class position: 4 juniors; 1 senior

Majors: 1 Mechanical Engineering, 1 Computer Engineering; 1 Neuroscience; 1 Communications; 1 HOD

Race: 4 Caucasian; 1 African American

Students' feedback on the value of a Vanderbilt degree

1. Security, especially if you do not know what you want to do. A Vanderbilt degree is worth more; you can do anything with a Vanderbilt degree
2. Connections/Networking - amazing network especially alumni and professors
3. Vanderbilt is a small community built on trust
4. Spectrum/quality = success
5. More likely to do something phenomenal
6. sought after opportunities
7. Ability/able to achieve because Vanderbilt students benchmark of success is so high. Requirement to get into Vanderbilt is so high that a specific set of qualities is associated with every Vanderbilt degree
8. Peers push to be better; Summers are filled with internships and jobs; students think why not me too
9. Within the classrooms people are super smart; Your peers push you to be your best because everyone has the goal to be above the average
10. Gain more [?] with peers better than me because everyone wants to achieve great things
11. It is a better experience than being the top of the class in a less-selective school
12. Vanderbilt values all categories of people (diversity)
13. Exposure to diverse people with living learning community that cannot be replicated elsewhere
14. Grown from experience of different backgrounds
15. Diverse parts of the world are represented as members of those cultures people identify with (these are sincere, it's not the same as less diverse schools where students may just have an interest in a particular holiday or culture -- they are actually represented here)
16. People are willing to participate and learn more about different cultures and diverse views
17. Forced to live on campus makes students intermingle because it is made to happen; Living on campus pushes students to become involved with each other
18. 95-96% of students live on campus all four years; The community grows from this face time with all peers for four years
19. Commons enables students to share an experience together and understand where each other is coming from
20. Races/cultures intermingle
21. Vanderbilt is large enough that you don't know everyone but small enough that you always see a familiar face
22. Career fair was underwhelming after spending \$60,000/year tuition; however most opportunities are superior to other less selective schools



23. HOD internship - Capstone - pairs students with a variety of highly desirable companies (Jr/Sr year); Vanderbilt reputation precedes you; these internships and consulting work often lead to job offers because they know the type of student they are getting
24. Engineering mentorship program and experience is one of a kind
25. Vanderbilt is the [only] elite school that is committed to students finishing loan free minus the expected family contribution. They've heard several times (and I have too) that Vanderbilt was the cheapest option for their family
26. Vanderbilt is also one of the only Top 20 schools that also gives merit based scholarships (not just need based)
27. Residential experience
28. Vanderbilt gives students so much for free; they are constantly trying to capture their interest by throwing money at the students with exemplary events: Commons Ball, Rites of Spring are events that are part of the student experience that cannot be replicated elsewhere; they demonstrate a commitment Vanderbilt has to their students
29. Vanderbilt is also trying to replicate the Commons experience with the upperclassman; they recognize what a rewarding experience it has become and are trying to extend it
30. Students feel like their voices and opinions are heard and that Vanderbilt is committed to them and helping them succeed
31. They want students to engage in an active community all four years
32. Vanderbilt encourages students to go out into the community with partnerships with the Frist Art Museum and the Adventure Science Center; Ticket giveaways to amazing concerts in music city - "students would have never seen themselves turning down great tickets because they are too busy, but Vanderbilt gives them so many opportunities that they have to"
33. Professors are national leaders and students are learning so much; Example: Professors are committed geniuses
34. Its an amazing experience because the professors are citing each other's work and are active in creating new scholarship
35. Professors wrote the textbook and tailored it to the specific coursework; demonstrates an amazing personal student experience
36. *Race, Gender, Sports* - Course
37. *East Asia Architecture and Gardens* - course
38. Academic diversity (courses) are astounding and sure to peek every student's interests
39. Being in the SEC conference is the cherry on top
40. Experience amazing sports teams - Baseball National Champions - got to watch it with all their friends in the football stadium; or road tripped it to Omaha
41. Student athletes live in the Commons community too; with everyone else they are not secluded into isolation which builds another sense of camaraderie
42. Enriching experience makes it even more rewarding to go and cheer on your friends
43. Vanderbilt students have passions outside of football/sports and this leads to a healthier learning experience
44. Professors show their Vanderbilt pride in the academics
45. Sports are not everything
46. *They would like to see more support from the Nashville community and love for VU
47. They certainly do not want the college town atmosphere package but would like a little more of it
48. Connection with faculty are not only academic but on a personal level



- a. Ex. Retired professor meeting with a student for coffee; became her friend and there was just perfect timing; he helped to shape her career path and is still meeting with her
- 49. Connections with Professors boost you; Professor connections continue beyond the student experience
- 50. Professors take a vested interest in you and active role in your success and experiences (Slughorn sort of way encouraging you to build your network)
- 51. Professors are so vested in student success and that is so great; helps the students to appreciate the professors and recognize how much they care about student success



APPENDIX C

Parent Focus Group Transcription

The participants

3 female, 1 male

1 husband/wife

Children

Gender: 2 male; 2 unknown gender

Majors: Psychology, Engineering, Economics

Graduation year: 2014, 2018-2, 2016

Parents are making the effort to take children to schools that are far from where they live, like magnet schools.

Students are not better but parents take more interest and the value of education is instilled in them (caliber of person that attends Vanderbilt).

Students are not lackadaisical at Vanderbilt they are a better pool of students.

The type of people and their value system is what makes the difference.

There is a concentration of this value system at Vanderbilt that has a strong focus and drive.

?Versus the athlete that gets a positive influence on that student.

[Visions Program]

Students are not lost in the shuffle at Vanderbilt. There is a small student body. There are several approaches to make sure all students fit in at Vanderbilt. Visions Program Group Faculty Mentor and Upperclassmen Mentor hold students accountable beginning in their first semester of attendance.

Move in Day

1500 students are moved into their dormitories in 4 hours. The students do cheers and its a very positive experience for all students involved. Within 5 minutes of moving in the students meet their Resident Assistant (RA). Within 60 minutes of moving in they have met their roommate and Head of House (Commons). The entire process is very intentional, inclusive, and focused on the value of the individual.

One student was a D1 athlete and did not want to continue in athletics. Values instilled in the students at Vanderbilt are not just those in education. They teach a work ethic and the students are like-minded.

Like-minded students stick together.

Grandfather alumni is still connected to the friends he made while at Vanderbilt and he is now 88 years old.

Students are surrounded by other smart students. What can Vanderbilt do to make them be selective and driven?

All the students want to learn so you eliminate all the problem students and those with structural problems.



Vanderbilt University has a very diverse student body.

When the stakes are that high students must be willing to do the work.

High achievers are selected for Vanderbilt University. The pool of students are those that will produce valuable members of society and the motivation is not to weed out any students but to prepare them to be successful.

It takes more than parenting, genetics, peers, and specific choices to stay on that path to be successful.

Students do not have the option to fail so they learn to swim [study, strong work-ethic].

Students find their happiness through Greek life, dorms (are horrible). There are lots of opportunities to be involved and exposure in college is where they find themselves. Vanderbilt has the right people to mentor students as they find themselves.

Vanderbilt University is a specific high achieving tier of school.

Vanderbilt University is a known commodity it means something more than other less selective schools and their degrees.

Faculty are fine but not distinct amongst this tier of school.

Peer pressure helps students to strive to be better.

3 scenarios with 100 students each.

1. some succeed
2. some shut down
3. Some try to figure out how to get there

Knowing what Vanderbilt University is and its standards (70%) academic threshold (30%)

Different from the parents experience at Louisiana State University (husband/wife). They lived at home. Their son went to rocket camp and thought of Vanderbilt University as the backup plan. Vanderbilt is their community team (they live in Nashville).

Employment opportunities are better.

Vanderbilt degree will not be diluted and will continue to rise and serve their students and alumni well.

Great career services.



APPENDIX D

Highly Selective Value Survey

The survey below is part of a doctoral research project being conducted by the Peabody College graduate students listed below, under the guidance of Professor John Braxton. The survey is being administered in conjunction with the Vanderbilt Institutional Research Group (VIRG) to ensure confidentiality and anonymity.

This survey is a research project and is not a Vanderbilt institutional survey, so the responses to the survey will not be tied to any Vanderbilt academic records or alumni records. Given this, in order to aggregate the data, demographic data is asked at the end of the survey.

This research survey has Vanderbilt Institutional Review Board (IRB) approval.

Your assistance in this research will help in identifying and understanding what aspects of the educational experience are valued the most.

At the conclusion of the survey there will be an option to enter a drawing for a \$50 Visa Gift Card. In late February, the winner will be randomly selected by VIRG and contacted via email.

Questions about the research or survey can be addressed to: Gary Adcox or Megan Pask via the VIRG email account: virg@vanderbilt.edu

Thank you for helping with our doctoral research.

Q1 Top reason for deciding to go to college (select one):

- To get a college degree
- To be able to get a better job
- To be able to make more money
- To gain a general education/appreciation of ideas
- To get training for a specific career
- To learn more about things that interest me
- To make me a more cultured person
- To prepare for graduate/professional school
- To become an educated citizen in society
- To perform well in extracurricular activities
- To develop a sense of self

Q2 Reasons for choosing to attend Vanderbilt University (select all that apply):

- I wanted to go to school about the size of this college
- I wanted to live near home
- I was admitted through an Early Action or Early Decision Program
- I was attracted by the religious affiliation/orientation of the college
- I was offered financial assistance
- My guidance counselor and/or teacher advised me to attend



- My parents advised me to attend
- I was not accepted at my first choice
- I was not offered financial aid by my first choice
- Vanderbilt University's rankings in national magazines
- The athletic department recruited me
- This college's graduates gain admission to top graduate/professional schools
- This college's graduates get good jobs
- This college had a good reputation for its social activities
- This college was a more affordable for my family
- This college had a very good academic reputation
- This college offered special educational programs

Q3 When I think about my Vanderbilt University educational experiences compared to those available at less-selective institutions, the experiences that I value the most are:

	Not valued (1)	Somewhat valued (2)	Valued (3)	Highly valued (4)
The academic preparation of my peers, drove my determination to succeed in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty allowed me to get-by without a lot of academic effort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other students pushed me to perform at my best academically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The university had a small, learning community where I felt connected to everyone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The university had a large diverse population where everyone did their own thing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People were willing to participate and learn more about different cultures and diverse views	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alumni and professor networking connections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My experience at Vanderbilt University opened more doors for me than my major or degree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School funded opportunities for travel and entertainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School funded opportunities for research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professors were national leaders active in creating new knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q4 Comparing my Vanderbilt University experiences to those available at less-selective institutions, I place importance on:

	Not important (1)	Somewhat important (2)	Important (3)	Highly important (4)
Graduating with a Vanderbilt degree is more valuable regardless of major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students learn more at Vanderbilt because of the quality of instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professors took an vested interest in me and my success	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Vanderbilt degree better prepared me for my career than peers from less selective institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Vanderbilt degree provided me with career opportunities that were unavailable to peers from less-selective institutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Vanderbilt experiences prepared me to be a leader	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My extracurricular achievements have been invaluable to my success	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My experiences at Vanderbilt have enabled me to actively participate in the world around me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q5 Thinking about your entire experience at Vanderbilt University, how satisfied are you with each of the following services or aspects?

	Very dissatisfied (1)	Generally dissatisfied (2)	General ly satisfied (3)	Very satisfied (4)
Overall satisfaction with my undergraduate education at Vanderbilt University	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall quality of instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Out of class availability of faculty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall quality of instruction within a major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independent study/research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Study abroad opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities to participate in research with a faculty member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of advising within major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Counseling I received helped me to decide on my chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internship Opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities to participate in extracurricular activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities for personal growth and development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of intellectual excitement on campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social life on campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of academic support and assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of courses I wanted to take outside of my major	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural and fine arts programming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student voice in campus policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connection with the Nashville community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities to interact with diverse individuals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q6. Based on what you know now, how well do you think your undergraduate experience at Vanderbilt University prepared you:

	Very inadequately (1)	Inadequately (2)	Generally well (3)	Very well (4)
To persist and attain a degree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To think analytically and logistically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To acquire new skills and knowledge on my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To judge the value of information, ideas, actions and conclusions based on the soundness of sources, methods, and reasonings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To use the knowledge, ideas, or perspectives gained from my major field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To communicate effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To achieve accomplishments beyond the classroom through extracurricular activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To use information technology in intellectual and/or professional pursuits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To understand and apply quantitative principles and methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To understand international perspectives on economic, political, social and cultural issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop habits such as meeting deadlines, multitasking, and task completion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To gain an understanding of and appreciation for the arts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To understand the scientific method and how scientists test hypotheses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop my personal identity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For graduate or professional school when I compare myself with others in my graduate/professional degree program(s)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For my chosen career path?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q7. How well did your undergraduate experience at Vanderbilt University prepare you for personal and professional situations that require:

	Very inadequately (1)	Inadequately (2)	Generally well (3)	Very well (4)
The ability to work as a member of a team or group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To serve in position of major responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To persist until a long-term accomplishment is achieved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To communicate in an efficient and effective manner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to evaluate and choose between alternative courses of action	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ethical standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To use my creativity to excel in my chosen career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ability to get along with people of diverse backgrounds and perspectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Awareness of contemporary issues in society and technology, and appreciation of their complexity of cause and consequences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q8 How satisfied were you with each of the following aspects of campus life?

	Very dissatisfied (1)	Generally dissatisfied (2)	Generally satisfied (3)	Very satisfied (4)
Guest speakers and campus-wide events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student clubs and organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of community while I lived on campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate for ethnic/racial diversity of the campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate for LGBTQ students on campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural and fine arts programming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religious/spiritual life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Greek life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-Greek life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connection to alumni network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic Learning Community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of academic expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Freedom to pursue my intellectual interest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q9 In thinking about your Vanderbilt University experience, to what extent do you feel you gained or made progress in the following areas while at Vanderbilt?

	Very little or none (1)	Some (2)	Quite a bit (3)	Very much (4)
Communicating effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring a broad general education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring knowledge about a particular field of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring knowledge and skills applicable to a specific job or type of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analyzing quantitative problems (understanding probabilities, proportions, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Becoming aware of different philosophies, cultures, and ways of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing my own values and ethical standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gaining knowledge about other parts of the world and other people (Asia, Africa, South America, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solving complex real-world problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking analytically and logically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding myself, my abilities, interests, and personality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring general academic knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring knowledge of government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gaining the ability to set and accomplish personal goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q10 To what extent has your experience at Vanderbilt University contributed to your knowledge, skills, and personal development in the following areas?

	Very little or none (1)	Some (2)	Quite a bit (3)	Very much (4)
Thinking critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Judging the merits of arguments based on their sources, methods, and reasoning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Functioning effectively as a member of a team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring in-depth knowledge of a field or discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicating effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating original ideas and solutions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding and using quantitative reasoning and methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relating well to people of different races, nations, and religions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Constructively resolving interpersonal conflicts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting scholarly research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring career- or work-related knowledge and skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Placing current problems in historical/cultural/philosophical perspective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding the process of science and experimentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical appreciation of art, music, literature, and drama	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading or speaking a foreign language	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing my drive to persist to achieve long term goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing goal setting capabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q11 Please indicate the importance to you, personally, of each of the following:

	Not important (1)	Somewhat important (2)	Very important (3)	Essential (4)
Becoming an authority in my field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtaining recognition from my colleagues for contributions to my special field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raising a family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being financially secure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping others who are need	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helping to promote racial understanding of other countries and cultures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The collective drive of the Vanderbilt learning community to persevere until graduation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Vanderbilt experiences have enabled me to think more critically about complex problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q12 Based on your educational experience at Vanderbilt University, please rate the following:

	Not valued (1)	Somewhat valued (2)	Valued (3)	Highly valued (4)
The academic prestige and quality of the institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The level of professional achievement of past graduates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic support of peers, faculty, and staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The deep level interest faculty members had for my personal development and educational opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The high level of academic preparation of my peers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The national and international reputation of the faculty (e.g. highly cited)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The high level of student engagement and learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The reputation of the institution and the ability to open doors for employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The professional level of alumni mentors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The strong alumni connections and their willingness to help graduates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institutional wide pride and support for athletic teams regardless of record	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The sense of a learning community at the institution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The academic quality of peer students that pushed me to achieve at even higher levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Vanderbilt experience has enabled me to readily share my ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My undergraduate experiences have prepared me to lead a group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The sense of a learning community at Vanderbilt focused my attention on graduating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q13 What is your PRINCIPAL activity at this time? (select one)

- Employed, full-time paid
- Employed, part-time paid
- Graduate or professional school, full-time
- Graduate or professional school, part-time
- Additional undergraduate coursework
- Military service
- Volunteer activity (e.g. Peace Corps)
- Starting or raising a family
- Other

Q14 What are your secondary activities? (Mark all that apply)

- Employed, full-time paid
- Employed, part-time paid
- Graduate or professional school, full-time
- Graduate or professional school, part-time
- Additional undergraduate coursework
- Military service
- Volunteer activity (e.g. Peace Corps)
- Starting or raising a family
- Other

Q15 Is your current position related to your undergraduate major(s)?

- Yes, same field as major(s)
- Yes, related to major(s)
- No, not related

Q16 Is your current position related to your undergraduate field(s) of study?

- Yes, related to major(s) and/or minor(s)
- No, not related to major(s) or minor(s)

Q17 Please indicate your agreement with the following statement:

	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
The benefits received from attending Vanderbilt University were worth the financial costs to my family and me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Q18 Did you actively participate in any of the following while you were at Vanderbilt University? (Mark all that apply)

- Guest speakers and campus-wide events
- Student clubs and organizations
- Volunteer service
- Greek organizations
- Academic clubs, honor societies, or professional associations
- Intramural athletics
- Religious/spiritual groups
- Cultural/ethnic organizations
- Intramural/Club sports
- Musical/theater groups
- Student publications
- Student government
- Intercollegiate athletics (NCAA)
- Campus tours
- None of the above

Q19 In what major did you graduate (please select best description)

- Biological Sciences
- Business
- Education
- Engineering
- Fine arts
- Humanities
- Physical sciences
- Social sciences
- Other

Q20 Did you have a second major?

- Yes
- No

Answer If you DID have a second major? Yes Is Selected

Q21 Please select the best description for your second major.

- Biological Sciences
- Business
- Education
- Engineering
- Fine arts
- Humanities
- Physical sciences
- Social sciences
- Other



Q22 When did you graduate?

- Within the last 5 years
- Between 6 years and 10 years ago
- Between 11 years and 15 years ago
- Between 16 years and 20 years ago
- More than 21 years ago

Q23 Gender

- Male
- Female

Q24 Race

- White/Caucasian
- African American/Black
- Asian American/Asian
- Hispanic/Latino
- Native American
- Native Hawaiian/Pacific Islander
- Puerto Rican American
- Other Latino
- Other

Q27 Do you want to be entered into a raffle to win a \$50 Visa Gift Card?

- Yes, please enter me into the raffle!
- No, I don't want to be entered



APPENDIX E

Survey Invitation and Reminders

Dear ,

You are invited to participate in a survey to determine the non-monetary value of an undergraduate education at a highly-selective institution like Vanderbilt University. This study is being conducted in collaboration with the Vanderbilt Institutional Research Group (VIRG) as part of our doctoral program in education at Vanderbilt University's Peabody College. As part of our Ed.D. Capstone Project, we want to better understand how you, as a Vanderbilt graduate, assign value to the programs and activities in which you participated as an undergraduate student.

To participate in the survey, please click the link below. The survey should take an average of 10-15 minutes to complete.

[Take the Survey](#)

To thank you for participating, all survey participants will be entered in a drawing to win a \$50 Visa Gift Card. The prize winner will be randomly selected from survey participants.

Confidentiality: Your participation in the survey and your responses will be held in strictest confidence. No identifying links between responses and the individual responding will be retained. Only combined results will be reported. The email addresses of participants will be stored separately from the survey responses and discarded after the contest winner has been identified.

Questions about the research or survey can be addressed to: Gary Adcox or Megan Pask via the VIRG email account: virg@vanderbilt.edu

Thank you in advance for your assistance. We hope this survey will help identify which parts of the Vanderbilt experience are most valued by Vanderbilt University alumni.

Sincerely,

Gary Adcox and Megan Pask
EdD Candidates 2016



FIRST REMINDER

This is a reminder to participate in the value of an undergraduate education from Vanderbilt University survey. This study is being completed in collaboration with Vanderbilt University's Institutional Research Group (VIRG) as part of research component for our doctorates in education at Peabody College.

As part of that project, we want to better understand the programs and activities that you found to have the greatest value from your educational experience at Vanderbilt University.

We request that you to complete a 10-15 minute online survey, please click the link below or cut and paste in your browser:

www.vanderbiltEdD.survey.com

This is your opportunity to give feedback on what you found to be the most valuable during your undergraduate educational experience. We urge you to participate in this brief survey to help identify which experiences you found to be most valuable from your time at Vanderbilt University.

To thank you for participating, all survey participants will be entered in a drawing to win a \$50 Visa Gift Card. The prize winner will be randomly selected from survey participants.

Confidentiality: Your participation in the survey and your responses will be held in strictest confidence. No identifying links between responses and the individual responding will be retained. Only combined results will be reported. The email addresses of participants will be stored separately from the survey responses and discarded after the contest winner has been identified.

To participate in the survey, please click the link below or cut and paste in your browser:

www.vanderbiltEdD.survey.com

Thank you in advance for your assistance. We hope this survey will help identify which parts of the Vanderbilt experience are most valued by Vanderbilt University alumni.

Thank you for your time.

Sincerely,

Gary Adcox and Megan Pask
EdD Candidates 2016



SECOND REMINDER

Hurry, time is running out to participate in the non-monetary value of an undergraduate education at Vanderbilt University being completed as part of a final project for our doctorates in education from Vanderbilt's Peabody College in collaboration with Vanderbilt University's Institutional Research Group (VIRG).

We are asking that you to complete a 10-15 minute online survey, please click the link below or cut and paste in your browser:

www.vanderbiltEdD.survey.com

This is your opportunity to give feedback on what found to be the most valuable during your undergraduate educational experience. We urge you to participate in this brief survey to help identify which experiences you found to be most valuable from your time at Vanderbilt University.

To thank you for participating, all survey participants will be entered in a drawing to win a \$50 Visa Gift Card. The prize winner will be randomly selected from survey participants.

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To participate in the survey, please click the link below or cut and paste in your browser:

www.vanderbiltEdD.survey.com

Thank you in advance for your assistance. We hope this survey will help identify which parts of the Vanderbilt experience are most valued by Vanderbilt University alumni.

Thank you for your time.

Sincerely,

Gary Adcox and Megan Pask
EdD Candidates 2016



THIRD (FINAL) REMINDER

Final Reminder! Time is running out to participate in the non-monetary value of an undergraduate education at being completed as part of a final project for our doctorates in education from Vanderbilt's Peabody College in collaboration with Vanderbilt University's Institutional Research Group (VIRG).

We urge you to participate in this 10-15 minute online survey, please click the link below or cut and paste in your browser:

www.vanderbiltEdD.survey.com

To thank you for participating, all survey participants will be entered in a drawing to win a \$50 Visa Gift Card. The prize winner will be randomly selected from survey participants.

Confidentiality: Your participation in the survey and your responses will be held in strictest confidence. No identifying links between responses and the individual responding will be retained. Only combined results will be reported. The email addresses of participants will be stored separately from the survey responses and discarded after the contest winner has been identified.

To participate in the survey, please click the link below or cut and paste in your browser:

www.vanderbiltEdD.survey.com

Thank you in advance for your assistance. We hope this survey will help identify which parts of the Vanderbilt experience are most valued by Vanderbilt University alumni.

Thank you for your time.
Sincerely,

Gary Adcox and Megan Pask
EdD Candidates 2016