The Decision-Making Process involved in Degree Selection by Students

by Kate Matthews

A thesis presented to the Honors College of Middle Tennessee State University in partial fulfillment of the requirements for graduation from the University Honors College

Spring 2023

Thesis Committee:

Diane Edmondson, Thesis Director

Dr. Philip E. Phillips, Thesis Committee Chair

# The Decision-Making Process involved in Degree Selection by Students by Kate Matthews

| APPROVED:                            |
|--------------------------------------|
|                                      |
|                                      |
| Dr. Diane Edmondson, Thesis Director |
| Professor, Marketing                 |
|                                      |

Philip E. Phillips, Thesis Committee Chair Associate Dean, University Honor College

#### **Abstract**

With over 19 million students enrolled in college, understanding the degree selection process is important for departments, colleges, and universities alike. As the number of traditional college-aged students declines, this information is even more important as universities, colleges, and departments will be fighting for majors. For students, selecting the proper major early on reduces time in school, resulting in lower tuition costs. Therefore, a better understanding of the degree selection process is beneficial for both parties involved.

Data was collected from 1,177 undergraduate students at Middle Tennessee State University using a Qualtrics survey. The survey asked questions about personality types, reasons for selecting a major, and a variety of attitude and demographic items. The results were investigated in a variety of ways and displayed in individual tables to examine differences in means and responses.

The results indicate that the highest ranked reasons that students select a major are interest and passion. Next, they feel the major is a fit with their personality type. Further, when changing a major, the highest reason for doing so was also interest and passion, followed again by fit with personality. While students seek support from their families for the major that they selected, family influence was not a significant contributor to selecting the degree with the exception of students in the College of Business. Five differences were found based on gender. Additionally, several differences were noted based on class standing and college. Recommendations are based on the results of this study are provided.

## Table of Contents

| Abstract   | ii  |
|--|-----|
| Table of Content   | iv  |
| I Introduction   | 1   |
| II Literature Review   | 2   |
| III Methodology  | 9   |
| IV Results   | 11  |
| Table 1: Why Students Selected Their Major                                   | 13  |
| Table 2: Number of Times Students Changed their Major                        | 14  |
| Table 3: Reasons for Changing Major  | 15  |
| Table 4: Career Planning with Current Major                                  | 106 |
| Table 5: Personality Inventory   | 107 |
| Table 6: Gender Comparison on Planning and Perseverance of Effort            | 118 |
| Table 7: Gender Comparison on Influences in the Selection of a Major         | 119 |
| Table 8: Class Standing Comparison on Planning, Impulsiveness                | 217 |
| Table 9: Class Standing Comparison on Influences in the Selection of a Major | 262 |
| Table 10: College Comparison   | 274 |
| Table 11: College Comparison on Influences in the Selection of a Major       | 316 |
| V Discussions and Implications   | 327 |
| VI Limitations and Future Research   | 341 |
| References   | 342 |
| Appendix A   | 344 |
| Annendix B   | 355 |

## Introduction

There were 19.65 million college students enrolled in private and public colleges in the United States in 2019 (NCES, 2021). All these students were responsible for selecting to major and deciding where to obtain their degree. However, making these decisions is no easy task. For example, at one public university in the Southeast, there are 100 graduate and 140 undergraduate degree programs. In the same state, there are also 55 different public and private universities from which students can choose. With this many choices, deciding where to obtain that degree and on what degree to major in can be overwhelming. Further, increasing the burden of this decision, the outcome impacts the individual for life.

Even once students make an original decision regarding what major to pursue, this decision can change over time. In fact, a recent study by Cappex (2021) indicated that 80% of students change their major at least one time. They also found that only 33% of students graduate within the traditional 4 years, while 24% take between 4 and 6 years to finish whereas 43% never graduate (Cappex, 2021). Considering that the average student loan debt is \$38,255 (Student Loan Hero, 2021), selecting the wrong major can be costly and potentially devastating for the student.

Given the number of students facing these decisions, it is important to understand how students make these decisions as well as what is known about the decision-making process. By understanding the decision-making process, insight can be gained to help students make better choices early on, leading to higher graduation rates and less time spent in college, which may ultimately lower student loan debt. For example,

understanding the external and internal motivation factors that have the greatest impact combined with a student's ability to perform can aid in guiding individuals to the best suited major. Ideally, the information gained from this study can help universities, colleges, and departments assist their students in this decision-making process to improve overall retention and student success. Further, in aiding students in this decision, universities, colleges and departments can better market their programs to prospective students to increase enrollment. This is even more important in upcoming years since the population of traditional college-aged students is declining, thus resulting in fewer traditional incoming freshman (NCES, 2021).

П

#### Literature Review

## **Intrinsic Factors Influencing Major**

When deciding about one's major, it is necessary to examine the internal reasons why a student might make a specific decision. Some of the internal or intrinsic factors include a person's interests or personality type. A study by Pittaolulis (2012) categorized individuals into a 2-dimensional typology. One dimension is an individual's planfulness, the extent to which a student participates in development activities, and the other is occupational or educational goals for the first year after college. Based on these two dimensions, students are classified as "Strivers," "Explorers," "Satisficers," or "Delayers." Students who pursue development activities and set goals for themselves for the first year after college are classified as "Strivers." Those who do not have set goals for the first year after college but do pursue development activities are considered "Explorers." The third classification, "Satisficers," is for those who have goals for the

first year after college but do not pursue development activities. Finally, those who do not have goals for the first year after college and do not pursue development activities are classified as "Delayers." The results from Pittaolulis's (2012) study indicate that Strivers were found across all types of majors. Science majors fell into the categories of either Strivers or Satisficers, depending on their engagement in development activities. Practical arts students, however, tended to participate in the development activities, but varied in the post-college goals. Finally, liberal arts students spanned all the classifications, which highlights this area as having the most variation in structural support and plan development.

When investigating potential theories related to degree selection based on intrinsic factors, there are several possible theories including Theory of Work Adjustment and Social Cognition Theory. First, the Theory of Work Adjustment (TWA) explores how one's career is a lifestyle rather than just a job (Ozcan, 2017). Because of this, it is not necessary to define oneself by a single career, but rather by development changes that occur over the course of time. The interest and skill portion of life enjoyment can be separated and pursued in hobbies outside of a specific career.

A second potentially relevant theory based on intrinsic factors is Social Cognition Theory. Social Cognition Theory (SCT) states that individuals are agents of their lives rather than mere witnesses (Bandura, 1986). Further, from a career-decision making perspective, Social Cognition Career Theory (SCCT) utilizes self-efficacy, which is an individual's confidence in their ability to utilize their cognitive resources, and motivation to effectively navigate the actions needed to execute specific tasks. Social Cognition Career Theory has been used to explain personal career successes and failures (Xing &

Rojewski, 2018). Individuals with high self-efficacy are better able to analyze a situation objectively, examine external factors, and self-reflect, which are instrumental in career development. The development of interests in career-related activities are used to form goals and active engagement to achieve those goals. (The more the interest, the better the goal and increased engagement that builds self-efficacy, therefore creating an iterative process.) Therefore, people who have experienced career-related tasks and achieved career-related goals are more decisive, successful, and have greater self-efficacy as a result.

## **Extrinsic Factors Influencing Major**

The internal or intrinsic thinking process of a student also interacts with external factors that can act as support or barriers which impact career decisions and development (Oymak & Hudson, 2018). Some extrinsic influences or factors related to student career decision-making include support from parents, families, teachers, mentors, or role models. While studies have been conducted investigating support, few differentiate between the different types of support, such as family members versus school counselors; however, one by Oymak & Hudson (2018) indicated that family members had the greatest influence on thinking about education after high school. A close second most influential was the individual themselves (i.e., intrinsic), followed by teachers and others (e.g., friends, role models, counselors, and employers). However, when thinking about careers rather than on education, the individual was the most influential (i.e., intrinsic) followed closely by family members and a distant third teachers then finally others.

Another extrinsic aspect that some students may use to help choose a degree is based on their achievements in specific courses in high school such as math and science,

often referred to as STEM classes (Morrison, 2015). The acknowledgment of the student's ability can be an extrinsic influence on degree selection. Further, Morano (2005) conducted an experiment with undecided students investigating whether an 8-week intervention course designed to help students decide on a major was impactful. The study found that regardless of whether students took the 8-week intervention course, students tended to decide on their major by the end of their sophomore year. Therefore, other extrinsic factors may relate to time and/or pressure to decide.

## **Intrinsic and External Factors Influencing Major**

It is possible that both intrinsic and extrinsic factors play a role in degree selection. A study was conducted on vocational students to explain vocational behavior utilizing the person-environment (P-E) theory in combination with Holland's typological theory (Gottfredson & Johnstun, 2009). The premise behind Holland's theory is that work environments can be classified into typologies and individual differences can be characterized to a typology of a person. Certain people's typologies match specific environment typologies better than other environmental typologies. The six work environment types from this study included Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. For example, an environment classified as Investigative would be someone working in a science or chemistry lab. The six personality types were named the same as the environment, but were based on presenting certain competencies, preferences, values, and self-evaluations. Thus, someone classified as a Conventional type is a rule follower and displays organizational skills.

While it makes sense to match environments and personality based on typology, there are many factors that may prevent the two from matching. For example, in periods of economic downturns, many people may lose jobs and would be happy to find any line of work. Family responsibilities, coworker or supervisor interpersonal problems, and mental health can also prevent the two from aligning (Gottfredson & Johnstun, 2009). Holland's theory suggests that individuals will seek environments that are the same as their typology and will leave or avoid environments in contrast to their typology. Likewise, environments will attract and retain individuals with the same typology.

Another study drawing on Holland's typology theory coupled with the theory on occupational mobility (OC) found that the theory was more applicable for job change, when an individual changes from one job typology to another typology, than for career selection (Parsons & Wigtil, 1974). Often initial job choice is due to variables like economics or sociological aspects such as money, benefits, and type of work, but personality characteristics became more relevant for job changes. Further the number of jobs available within the personality type must also be considered (Parsons & Wigtil, 1974).

A final study that combined both intrinsic and extrinsic factors also utilized social cognitive career theory (Wu, 2020). This Asian sample explored several extrinsic factors: family pressure to choose reputable professions, coupled with the collectivist societal culture, and family shame in student's career decision-making. When investigating students that studied overseas, thirteen of sixteen students indicated that their career choice was not directly influenced by their families. Rather, learning and living in a foreign country had a significant influence on personal fulfillment (intrinsic motives) and career choice (Wu, 2020). When removed from the extrinsic family pressure, the majority of students selected a major based on intrinsic factors.

## **Changes in Major**

Because recent research has shown that 80% of students change their major (Cappex, 2021), it is important to understand the differences in selection between the first and the second major. Peterson (2006) investigated intrinsic verses extrinsic factors as it relates to changing majors rather than the initial selection. The greatest factors when changing major was the subject was very interesting (73% in 1st major vs 79.5% for 2nd major) followed by enjoyment of learning the subject (73.7% in 1st major vs 75.2% in 2nd major). Both factors are considered intrinsic rather than extrinsic. The highest extrinsic factor was the major related to a job of their choice (67.3% 1st major vs 66.8% in 2nd major). Therefore, more people selected a first and second major based on the enjoyment of the subject rather than on the fit with the career they hoped to obtain. Family influence was shown to play a smaller role in major selection both in the first and second selection of a major (30.2% in 1st major vs 30.6% in 2nd major). Therefore, intrinsic factors seem to be a greater contributor than extrinsic factors. This research highlights how the factors impacting the first major change did not differ from original selection; however, it also shows that intrinsic factors appear to be a greater contributor to degree selection over extrinsic factors.

## **Exploratory Qualitative Study**

Although there are a variety of theories which could help explain a student's degree selection, there is a limited amount of prior research on the topic. Because of this, a qualitative, exploratory study was conducted as part of an honors contract in Dr. Tim Graeff's marketing research course. A qualitative survey was developed and sent out to students in multiple classes at Middle Tennessee State University, predominantly in the

business school. Open-ended questions were used to understand the decision-making process. Eighty-one respondents participated in this qualitative study. Marketing majors made up 41.9% of the sample, with business administration majors making up an additional 39.5% of the sample. The remaining 18.6% of respondents were made up of a variety of majors including aerospace, psychology, computer science, audio production, finance, accounting, management, and entrepreneurship. Forty-five percent of the respondents indicated they had changed their major at least one time. Of those that changed their major, 58% had only changed one time, 22% changed their major twice, 5% changed their major three times, and 8% indicated they had changed their major 4 or more times. Five percent of those changing their major did not respond with the number of times they had changed their major.

Those having an influence in the degree selection include a loved one (e.g., family or friend) (44 responses), a faculty member, either high school or college (25 responses), and professionals, either a mentor or speaker in class (7 responses). Other factors that influenced degree selection based on this qualitative survey was interest or a passion for the topic (27 mentions), variety of tasks or careers that may be available with a specific degree (13 mentions), personality (8 mentions), and money or security (5 mentions). These findings contrast with Peterson (2006) which showed intrinsic interests having a greater influence than extrinsic family. However, the small sample size and heavy concentration on business majors could contribute to these differences.

## **Thesis Statement and Research Questions**

This honors thesis seeks to understand the student decision making process in the selection of a college major. This research is important as degree selection decisions can

impact student body enrollment, advising, loan debt, and overall student success. This research can also help departments, colleges, and universities recruit students since they can better guide students into choosing a well-suited major. Further, with the population decline and fewer traditional incoming freshman, this information will be even more important to the long-term success of a university, college, or department (NCES, 2021). Therefore, the specific thesis questions are: 1. What are the factors that lead to a student selecting a major? 2. What leads to a student switching majors? 3. How might a university, college, or department best market to students during the decision making process?

#### Ш

## Methodology

This thesis utilizes a quantitative research project based on a Qualtrics survey. The survey questions focus on the decision-making process used in degree selection. Moreover, these questions concentrate on the areas of theory uncovered in the literature review process. This survey sheds light on the greatest impact in why students select their major. The survey was sent to 15,162 currently enrolled undergraduate MTSU students. The survey was sent on December 2, 2022, to MTSU student's email addresses through Qualtrics. Students used the survey link embedded in the email to participate in the survey. To increase the response rate, email reminders were sent through Qualtrics on December 6<sup>th</sup> and 12th to individuals who had not completed the survey. These strategies enabled the collection of an appropriate number of responses. The data was obtained using Qualtrics and analyzed via Excel and SPSS, a software made for statistical analysis.

The recruitment email and survey instrument can be found in Appendix A and Appendix B, respectively.

The survey goal was to obtain at least 300 completed surveys. In the end, the response rate to the survey was much higher. Of the original 15,162 students emailed, 2,223 started the survey. After removing those not providing consent, incomplete surveys, surveys from respondents under the age of 18, individuals not willing to provide their best answers, and surveys from respondents who failed the attention checks, there were 1,177 completed responses used for analysis. This represents 52.9% of those that started the survey.

#### Measures

All of the attitude-based scales were unidimensional and taken from existing literature. Personality inventory was a 5-item scale from Gosling, Rentfrow, and Swann (2003), concern for achievement ( $\alpha=0.805$ ) was a 5-item scale from Netemeyer, Burton, and Lichtenstein (1995), and positivity ( $\alpha=0.870$ ) was a 8-item scale taken from Caprara et al. (2012). Grit taken from Duckworth and Quinn (2009) was broken into two different constructs with the first construct being 4-items focusing on Perseverance of Effort (Tenacity) ( $\alpha=0.795$ ) and the second construct being 4-items focusing on Consistency of Interest (Passion) ( $\alpha=0.700$ ). Behavioral activation systems drive ( $\alpha=0.856$ ) was a 4-item reduced measure taken from Carver and White (1994), propensity to plan for time short term ( $\alpha=0.916$ ) and long term ( $\alpha=0.938$ ) were both modified 6-item scales taken from Lynch et al. (2010). Six items were modified from Rook and Fisher's (1995) impulsiveness scale ( $\alpha=0.883$ ). Finally, five items were used to measure regret experience ( $\alpha=0.929$ ) taken from Creyer and Ross (1999). Beyond the attitudinal scales,

two open ended questions asked what information the student wished they had when selecting a major and what information they feel would be most beneficial to others. Both intrinsic and extrinsic motivation were also asked on the survey; however, due to the scale items not focusing on a student population, these two scales were dropped from the analysis.

## IV

## **Results**

## **Respondent Demographics**

All the 1,177 respondents were over the age of 18, with 73.2% (N = 816) being the traditional college age between 18 and 22 years old. Similarly, 88.4% (N = 1040) were single. Most of the participants were white (78.5%, N = 924) or African American (14.1%, N = 166), with 92.9% (N = 1,093) being non-Spanish, Hispanic, or Latino. School classification results show that 18.9% (N = 223) of participants were freshman, 18.2% (N = 214) were sophomores, 23.7% (N = 279) were juniors, 38.0% (N = 447) were seniors, and 1.2% (N = 14) were graduate students. Participants were also asked to provide the number of credit hours they typically take per semester with 84.3% (N = 992) being considered full time (12-17 hours). The types of classes they were currently completing included 87.3% (N = 1,027) being in person classes, 40.4% (N = 476) online (asynchronous), and 12% (N = 141) remote courses (e.g., Zoom). Next, 48.9% (N = 576) stated they work a part-time job and 16.6% (N = 195) work full-time. As for outside activities, 97.5% (N = 1,148) said they were not a student athlete, and most stated they do not currently volunteer at 72.6% (N = 855). Lastly, 34.8% (N = 410) of students made below \$10,000 a year while 25.8% (N = 304) did not have any personal income.

When investigating the reasons why students selected their major, there were 12 reasons provided (see Table 1). Results showed that students believed that interest/ passion and fit with personality were the strongest reasons as to why they picked their majors. Surprisingly friend influence, advisor and guidance counselor, not able to pursue what I want, and avoidance of specific courses were all reasons students did not use when selecting their major.

**Table 1: Why Students Selected Their Major** 

| Reason for<br>Selecting Major         | 1<br>SD | 2       | 3       | 4       | 5       | 6       | 7<br>SA | Mean<br>(SD) |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|--------------|
| Interest/ Passion                     | 21      | 11      | 23      | 70      | 168     | 254     | 630     | 6.09         |
|                                       | (1.8%)  | (0.9%)  | (2.0%)  | (5.9%)  | (14.3%) | (21.6%) | (53.5%) | (1.30)       |
| Fit with Personality                  | 29      | 22      | 49      | 114     | 245     | 286     | 432     | 5.64         |
|                                       | (2.5%)  | (1.9%)  | (4.2%)  | (9.7%)  | (20.8%) | (24.3%) | (36.7%) | (1.46)       |
| Family Influence                      | 363     | 179     | 144     | 153     | 153     | 94      | 91      | 3.17         |
|                                       | (30.8%) | (15.2%) | (12.2%) | (13.0%) | (13.0%) | (8.0%)  | (7.7%)  | (1.99)       |
| Friend Influence                      | 541     | 181     | 135     | 108     | 108     | 50      | 54      | 2.51         |
|                                       | (46.0%) | (15.4%) | (11.5%) | (9.2%)  | (9.2%)  | (4.2%)  | (4.6%)  | (1.83)       |
| Taking a Class                        | 317     | 92      | 115     | 196     | 175     | 139     | 143     | 3.69         |
|                                       | (26.9%) | (7.8%)  | (9.8%)  | (16.7%) | (14.9%) | (11.8%) | (12.1%) | (2.11)       |
| Instructor/ Teacher                   | 414     | 164     | 110     | 170     | 129     | 92      | 98      | 3.09         |
|                                       | (35.2%) | (13.9%) | (9.3%)  | (14.4%) | (11.0%) | (7.8%)  | (8.3%)  | (2.04)       |
| Advisor/ Guidance                     | 575     | 193     | 126     | 115     | 74      | 51      | 43      | 2.36         |
| Counselor                             | (48.9%) | (16.4%) | (10.7%) | (9.8%)  | (6.3%)  | (4.3%)  | (3.7%)  | (1.74)       |
| Earning Potential                     | 157     | 80      | 109     | 185     | 250     | 197     | 199     | 4.43         |
|                                       | (13.3%) | (6.8%)  | (9.3%)  | (15.7%) | (21.2%) | (16.7%) | (16.9%) | (1.95)       |
| Work/ Life Balance                    | 163     | 86      | 139     | 250     | 231     | 161     | 147     | 4.16         |
|                                       | (13.8%) | (7.3%)  | (11.8%) | (21.2%) | (19.6%) | (13.7%) | (12.5%) | (1.87)       |
| Not able to Pursue what I really want | 638     | 175     | 82      | 114     | 68      | 40      | 60      | 2.29         |
|                                       | (54.2%) | (14.9%) | (7.0%)  | (9.7%)  | (5.8%)  | (3.4%)  | (5.1%)  | (1.81)       |
| Avoidance of                          | 495     | 187     | 120     | 148     | 122     | 49      | 56      | 2.65         |
| Specific Courses                      | (42.1%) | (15.9%) | (10.2%) | (12.6%) | (10.4%) | (4.2%)  | (4.8%)  | (1.84)       |
| Promotional                           | 448     | 178     | 145     | 189     | 104     | 59      | 54      | 2.76         |
| Materials for Major                   | (38.1%) | (15.1%) | (12.3%) | (16.1%) | (8.8%)  | (5.0%)  | (4.6%)  | (1.82)       |

When looking at changes in major, several questions were asked. The first question delt with frequency or the number of times students changed their major (see Table 2). A majority of student (58.9%, N = 693) have not changes their major. While 26.1% (N = 307) changed their major one time. The second question examined the reasons for changing their major (see Table 3). The three top reasons for why a major

was changed included interest/passion, fit with personality, and taking a class in my original major I didn't like. When looking at the other responses there was a numerous amount of people that expressed worry about physical/mental health, graduation timeline, or experience in original field.

Table 2: Number of times Students Changed their Major

| Frequency | # of times (%) |
|-----------|----------------|
| Never     | 693 (58.9%)    |
| 1 time    | 307 (26.1%)    |
| 2 times   | 91 (7.7%)      |
| 3 times   | 50 (4.2%)      |
| 4 times   | 20 (1.7%)      |
| 5+ times  | 16 (1.4%)      |

Table 3: Reason for Changing Major (Select all that Apply)

| Reason  | Frequency (%) |
|---|---------------|
| Interest/ Passion                                 | 311 (26.4%)   |
| Fit with Personality                              | 211 (17.9%)   |
| Family Influence                                  | 58 (4.9%)     |
| Friend Influence                                  | 39 (3.3%)     |
| Taking a class in my original major I didn't like | 154 (13.1%)   |
| Taking a class outside my major that I liked      | 94 (8.0%)     |
| Instructor/ Teacher                               | 74 (6.3%)     |
| Advisor/ Guidance Counselor                       | 34 (2.9%)     |
| Earning Potential                                 | 113 (9.6%)    |
| Work/ Life Balance                                | 119 (10.1%)   |
| Avoidance of Specific Courses                     | 85 (7.2%)     |
| Promotional Materials for New<br>Major            | 19 (1.6%)     |
| Other (Text Response)                             | 132 (11.2%)   |

The survey included several questions examining the extent to which a student completed any career planning. Almost half (43.2%, N = 509) had completed a personality test as it related to their potential career while only 12.1%, (N = 142) had visited the career development center regarding their major and future career. Table 4 below shows their opinions related to career planning research for their current major. The highest-ranking decision item dealt with family support of major.

**Table 4: Career Planning with Current Major** 

| Item   | 1<br>SD        | 2              | 3             | 4              | 5              | 6              | 7<br>SA        | Mean<br>(SD)   |
|--|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|
| I did extensive research on<br>typical careers with this<br>major                                      | 63<br>(5.4%)   | 66<br>(5.6%)   | 98<br>(8.3%)  | 140<br>(11.9%) | 241<br>(20.5%) | 223<br>(18.9%) | 346<br>(29.4%) | 5.11<br>(1.78) |
| I spoke to professionals in this area of study   | 112<br>(9.5%)  | 78<br>(6.6%)   | 100<br>(8.5%) | 112<br>(9.5%)  | 203<br>(17.2%) | 174<br>(14.8%) | 398<br>(33.8%) | 4.98<br>(2.01) |
| I researched the earning potential of careers with this major  | 47<br>(4.6%)   | 51<br>(4.3%)   | 56<br>(4.8%)  | 72<br>(6.1%)   | 232<br>(19.7%) | 247<br>(21.0%) | 472<br>(40.1%) | 5.57<br>(1.67) |
| My family supports my decision about this major  | 16<br>(1.4%)   | 19<br>(1.6%)   | 44<br>(3.7%)  | 58<br>(4.9%)   | 105<br>(8.9%)  | 229<br>(19.5%) | 706<br>(60.0%) | 6.17<br>(1.34) |
| I took a personality test to<br>confirm that I am a fit for<br>careers with this major                 | 453<br>(38.5%) | 149<br>(12.7%) | 88<br>(7.5%)  | 113<br>(9.6%)  | 123<br>(10.5%) | 87<br>(7.4%)   | 164<br>(13.9%) | 3.19<br>(2.25) |
| I have firsthand experience<br>with the type of work that I<br>will do in my career with<br>this major | 115<br>(9.8%)  | 93<br>(7.9%)   | 109<br>(9.3%) | 132<br>(11.2%) | 216<br>(18.4%) | 145<br>(12.3%) | 367<br>(31.2%) | 4.82<br>(2.03) |

When looking at the self-assessment of personalities shown in Table 5, extrovert trait appears to be a normal bell curve distribution. The majority of participants believe themselves to be agreeable, dependable, and open to experiences. Emotional stability also leans more to the strongly agree side of the scale than the middle or lower end of the scale, but scores lower than agreeable, dependable, and open to experience.

**Table 5: Personality Inventory** 

| I see myself as   | 1<br>SD      | 2              | 3              | 4              | 5              | 6               | 7<br>SA        | Mean<br>(SD)   |
|---|--------------|----------------|----------------|----------------|----------------|-----------------|----------------|----------------|
| Extraverted, enthusiastic (that is sociable, assertive, talkative, active, NOT reserved or shy)                               | 98           | 217<br>(18.4%) | 211<br>(17.9%) | 205<br>(17.4%) | 212<br>(18.0%) | 120<br>(10.2%)  | 114<br>(9.7%)  | 3.88<br>(1.76) |
| Agreeable, kind (that is trusting, generous, sympathetic, cooperative, NOT aggressive or cold)                                | 7<br>(0.6%)  | 13<br>(1.1%)   | 34<br>(2.9%)   | 106<br>(9.0%)  | 261<br>(22.2%) | 370<br>(31.4%)  | 386<br>(32.8%) | 5.77<br>(1.20) |
| Dependable, organized (that<br>is hard working, responsible,<br>self- disciplined, thorough,<br>NOT careless or impulsive)    | 3 (0.3%)     | 20<br>(1.7%)   | 66<br>(5.6%)   | 124<br>(10.5%) | 248<br>(21.1%) | 346<br>(29.4%)  | 370<br>(31.4%) | 5.64<br>(1.29) |
| Emotionally stable, calm<br>(that is relaxed, self-<br>confident, NOT anxious,<br>moody, easily upset, or easily<br>stressed) | 56<br>(4.8%) | 128<br>(10.9%) | 198<br>(16.8%) | 209<br>(17.8%) | 249<br>(21.2%) | 217<br>(18.4%)  | 120<br>(10.2%) | 4.36<br>(1.67) |
| Open to experience, imaginative (that is curious, reflective, creative, deep, open- minded, NOT conventional)                 | 0 (0%)       | 13<br>(1.1%)   | 30<br>(2.5%)   | 102<br>(8.7%)  | 261<br>(22.2%) | 36.1<br>(30.7%) | 410<br>(34.8%) | 5.83<br>(1.14) |

## **Comparison in Attitudes and Behaviors**

To compare if differences were significant in major selection attitudes and behaviors, a series of analysis of variances (ANOVAs) and comparison between means were conducted. Differences were examined based on three different classification criteria: gender, class standing, and college. The attitudes where differences were examined included concern for achievement, positivity, perseverance of effort (tenacity), consistency of interest (passion), behavioral activation systems drive, propensity to plan for short term and long term, impulsiveness, and regret. Since all of the scales used to

measure attitudes were unidimensional and reliable, each attitude scale was summed for analysis purposes. In addition, differences were also examined based on what influenced students to select their major. For any differences found based on either class standing or college, a Bonferroni analysis was used in order to determine what specific differences existed.

#### Gender

When examining the differences in attitudes based on gender (male or female), there were three attitude measures with significant differences. Significant differences existed for propensity to plan for short term (F = 34.782, p < 0.001) and long term (F = 59.744, p < 0.001) as well as perseverance of effort (tenacity) (F = 5.26, p = 0.022). According to the results, females were more likely to plan for both the short term and long term than males. However, males exhibited more tenacity (perseverance of effort) than females. The table below (See Table 6) provides more specific details on these differences. There were no significant differences between males and females for concern for achievement (F = 1.516, p = 0.218), positivity (F = 2.323, p = 0.128), consistency of interest (passion) (F = 0.028, p = 0.867), behavioral activation systems drive (F = 1.788, p = 0.181), impulsiveness (F = 2.098, p = 0.148), and regret (F = 0.443, p = 0.506).

**Table 6: Gender Comparison on Planning and Perseverance of Effort** 

| Attitude               | Gender* | Mean  | Standard  | Std. Error | 95% Confidence    |
|------------------------|---------|-------|-----------|------------|-------------------|
|                        |         |       | Deviation |            | Interval for Mean |
| Propensity to Plan for | Male    | 20.85 | 9.91      | 0.45       | 19.96 - 21.74     |
| Short Term             | Female  | 24.48 | 10.36     | 0.41       | 23.68 - 25.29     |
| Propensity to Plan for | Male    | 25.78 | 9.38      | 0.43       | 24.93 – 26.62     |
| Long Term              | Female  | 30.11 | 9.18      | 0.36       | 29.40 - 30.83     |
| Perseverance of Effort | Male    | 18.05 | 5.07      | 0.23       | 17.59 – 18.51     |
| (Tenacity)             | Female  | 17.32 | 5.41      | 0.21       | 16.90 - 17.74     |

<sup>\*</sup> There were 476 males and 640 females

Gender differences based on what influenced students to select their major was also investigated. Twelve different reasons were examined in this study. There were significant differences between males and females for three of these reasons (as noted in Table 7 below). In this study, results showed that females were more likely to be influenced by taking a class (F = 4.375, p = 0.037) or avoiding a specific class (F = 8.942, p = 0.003) than males. Males, on the other hand, were more influenced by Earning Potential (F = 8.980, p = 0.003) than females. There were no significant differences between males and females for the following reasons: Interest/Passion (F = 2.873, p = 0.090), Fit with Personality (F = 1.374, p = 0.241), Family Influence (F = 0.667, p = 0.414), Friend Influence (F = 1.696, p = 0.193), Instructor/Teacher (F = 0.069, p = 0.792), Advisor/Guidance Counselor (F = 2.220, p = 0.136), Work/Life Balance (F = 0.478, p = 0.489), Not Able to Pursue What I Really Want (F = 0.083, p = 0.774), and Promotional Materials for Major (F = 0.438, p = 0.508).

Table 7: Gender Comparison on Influences in the Selection of a Major

| Influence             | Gender* | Mean | Standard  | Std. Error | 95% Confidence    |
|-----------------------|---------|------|-----------|------------|-------------------|
|                       |         |      | Deviation |            | Interval for Mean |
| Taking a Class        | Male    | 3.51 | 2.05      | 0.09       | 3.32 - 3.69       |
|                       | Female  | 3.78 | 2.15      | 0.09       | 3.61 - 3.94       |
| Earning Potential     | Male    | 4.67 | 1.92      | 0.09       | 4.49 - 4.84       |
|                       | Female  | 4.31 | 1.95      | 0.08       | 4.16 - 4.47       |
| Avoidance of Specific | Male    | 2.45 | 1.79      | 0.08       | 2.29 - 2.61       |
| Courses               | Female  | 2.78 | 1.87      | 0.07       | 2.64 - 2.93       |

<sup>\*</sup> There were 476 males and 640 females

## **Class Standing**

Besides gender, differences in attitudes and behaviors based on the respondent's grade in school or class standing were also investigated. Significant differences existed

for propensity to plan for short term (F = 3.708, p = 0.011) and impulsiveness (F = 4.629, p = 0.003) as well as perseverance of effort (tenacity) (F = 5.704, p < 0.001) and consistency of interest (passion) (F = 3.649, p = 0.012). For propensity to plan for short term, seniors had statistically higher levels than freshmen (p = 0.036). For impulsiveness, sophomores exhibited statistically higher levels of impulsiveness than juniors (p = 0.002) and seniors (p = 0.026). For perseverance of effort, freshmen had statistically higher levels than juniors (p < 0.001) and seniors (p = 0.009). For consistency of interest, seniors had statistically higher levels than freshmen (p = 0.026). Except for the differences directly mentioned, there were no other significant differences between class standings for these constructs. Table 8 below provides more specific details on these differences. There were no significant differences in class standing for concern for achievement (F = 2.392, p = 0.067), positivity (F = 2.491, p = 0.059), propensity to plan for long term (F = 2.277, p = 0.078), behavioral activation systems drive (F = 1.404, p = 0.240), and regret (F = 0.947, p = 0.417).

Table 8: Class Standing Comparison on Planning, Impulsiveness, Perseverance of Effort, and Consistency of Interest

| Attitude               | Class     | Mean  | Standard  | Std. Error | 95% Confidence    |
|------------------------|-----------|-------|-----------|------------|-------------------|
|                        | Standing* |       | Deviation |            | Interval for Mean |
| Propensity to Plan for | Freshman  | 21.18 | 10.11     | 0.68       | 19.85 - 22.52     |
| Short Term             | Sophomore | 21.67 | 10.04     | 0.69       | 20.32 - 23.03     |
|                        | Junior    | 23.43 | 10.47     | 0.63       | 22.19 – 24.66     |
|                        | Senior    | 23.50 | 10.29     | 0.49       | 22.54 - 24.45     |
| Impulsiveness          | Freshman  | 16.67 | 8.70      | 0.58       | 15.53 - 17.83     |
|                        | Sophomore | 18.21 | 9.28      | 0.63       | 16.96 – 19.46     |
|                        | Junior    | 15.33 | 8.04      | 0.48       | 14.38 - 16.28     |
|                        | Senior    | 16.12 | 9.02      | 0.43       | 15.28 - 16.96     |
| Perseverance of Effort | Freshman  | 18.87 | 4.89      | 0.33       | 18.22 - 19.52     |
| (Tenacity)             | Sophomore | 18.14 | 5.22      | 0.36       | 17.44 - 18.85     |
|                        | Junior    | 17.06 | 5.49      | 0.33       | 16.41 - 17.71     |
|                        | Senior    | 17.50 | 5.28      | 0.25       | 17.01 – 17.99     |
| Consistency of         | Freshman  | 20.03 | 4.13      | 0.28       | 19.48 - 20.57     |
| Interest (Passion)     | Sophomore | 20.36 | 3.87      | 0.26       | 19.84 - 20.89     |
|                        | Junior    | 20.96 | 4.19      | 0.25       | 20.46 - 21.45     |
|                        | Senior    | 20.96 | 3.76      | 0.18       | 20.61 - 21.30     |
|                        | Female    | 30.11 | 9.18      | 0.36       | 29.40 - 30.83     |
|                        | Female    | 17.32 | 5.41      | 0.21       | 16.90 - 17.74     |

<sup>\*</sup> There were 223 Freshmen, 214 Sophomores, 279 Juniors, and 447 Seniors

Class standing differences based on what influenced students to select their major was also investigated. For the twelve different reasons examined in this study, there were two significant differences based on class standing. Differences existed based on Interest/Passion (F = 3.750, p = 0.011) and Promotional Materials for Major (F = 6.566, p < 0.001). For Interest/Passion, freshmen were more influenced based on interest/passion than senior (p = 0.005). For Promotional Materials for Major, seniors were less influenced by promotional materials than freshmen (p = 0.002) and sophomores (p = 0.002). See Table 9 below for more details related to these differences. There were no significant differences for class standing for the following reasons: Fit with Personality (F = 1.819, p = 0.142), Family Influence (F = 1.815, p = 0.143), Friend

Influence (F = 2.257, p = 0.080), Taking a Class (F = 0.567, p = 0.637), Instructor/Teacher (F = 0.605, p = 0.612), Advisor/Guidance Counselor (F = 0.198, p = 0.898), Earning Potential (F = 2.413, p = 0.065), Work/Life Balance (F = 0.199, p = 0.897), Not Able to Pursue What I Really Want (F = 2.495, p = 0.058), and Avoidance of Specific Courses (F = 0.805, p = 0.491).

Table 9: Class Standing Comparison on Influences in the Selection of a Major

| Influence             | Class     | Mean | Standard  | Std. Error | 95% Confidence    |
|-----------------------|-----------|------|-----------|------------|-------------------|
|                       | Standing* |      | Deviation |            | Interval for Mean |
| Interest/Passion      | Freshman  | 6.32 | 1.13      | 0.08       | 6.17 - 6.47       |
|                       | Sophomore | 6.11 | 1.17      | 0.08       | 5.95 - 6.27       |
|                       | Junior    | 6.12 | 1.34      | 0.08       | 5.96 - 6.28       |
|                       | Senior    | 5.97 | 1.36      | 0.06       | 5.85 - 6.10       |
| Promotional Materials | Freshman  | 3.05 | 1.85      | 0.12       | 2.81 - 3.30       |
| for Major             | Sophomore | 3.06 | 1.84      | 0.13       | 2.81 - 3.30       |
|                       | Junior    | 2.69 | 1.85      | 0.11       | 2.47 - 2.91       |
|                       | Senior    | 2.52 | 1.75      | 0.08       | 2.36 - 2.69       |

<sup>\*</sup> There were 223 Freshmen, 214 Sophomores, 279 Juniors, and 447 Seniors

## College

In order to investigate if there were significant differences in attitudes and behaviors based on the college, five different colleges at MTSU were included in the analysis. These colleges include Basic and Applied Sciences, Behavioral and Health Sciences, College of Business, College of Liberal Arts, and College of Media and Entertainment. Due to low respondent numbers from the College of Education and University College, these two colleges were excluded from these analyses. Significant differences by college existed (See Table 10) for all constructs except for impulsiveness (F = 0.526, p = 717) and regret (F = 0.981, p = 417). The respondents from the College of Liberal Arts had lower concerns for achievement than those from the Basic and

Applied Science (p = 0.036) and College of Business (p = 0.002). For positivity, the College of Business had higher levels of positivity than the College of Liberal Arts (p < 0.001) and the College of Media and Entertainment (p = 0.002). The College of Liberal Arts also had lower positivity levels than students in the Basic and Applied Sciences (p < 0.001) and Behavioral and Health Sciences (p < 0.001). In addition, the College of Media and Entertainment students exhibited lower positivity levels than students in the Basic and Applied Sciences (p = 0.001) and Behavioral and Health Sciences (p = 0.001).

When looking at grit's perseverance of effort, students in the Basic and Applied Sciences, Behavioral and Health Sciences, and College of Business had statistically lower scores than the College of Liberal Arts and College of Media and Entertainment. For Consistency of Interest, students in the Basic and Applied Sciences, Behavioral and Health Sciences, and College of Business had statistically higher scores than the College of Liberal Arts and College of Media and Entertainment. For Drive, students from the College of Business had higher levels than students from the College of Liberal Arts (p =0.015). For long-term planning, College of Business students exhibited higher long-term planning than students from the College of Liberal Arts (p = 0.031) and College of Media and Entertainment (p = 0.007). When looking at short-term planning, College of Business students exhibited a higher propensity to plan than students from the College of Media and Entertainment (p = 0.004). Students in the Behavioral and Health Sciences college also exhibited a higher propensity for short-term planning than students in Basic and Applied Sciences (p = 0.018), College of Liberal Arts (p = 0.015), and College of Media and Entertainment (p < 0.001).

**Table 10: College Comparison** 

| Attitude          | College*                       | Mean     | Standard  | Std.  | 95% Confidence    |
|-------------------|--------------------------------|----------|-----------|-------|-------------------|
| 11000000          | o maga                         | 1,120,11 | Deviation | Error | Interval for Mean |
| Concern for       | Basic and Applied Sciences     | 22.06    | 6.40      | 0.34  | 21.40 – 22.72     |
| Achievement       | Behavioral and Health Sciences | 21.93    | 6.91      | 0.46  | 21.03 – 22.83     |
| (F = 3.896, p)    | College of Business            | 23.05    | 6.25      | 0.51  | 22.04 – 24.06     |
| = 004)            | College of Liberal Arts        | 20.32    | 6.79      | 0.51  | 19.32 – 21.32     |
| Í                 | College of Media and           | 22.12    | 6.17      | 0.47  | 21.19 – 23.05     |
|                   | Entertainment                  |          | 0.127     |       |                   |
| Positivity (F     | Basic and Applied Sciences     | 38.53    | 8.88      | 0.47  | 37.62 – 39.45     |
| = 9.847, p <      | Behavioral and Health Sciences | 38.81    | 8.89      | 0.59  | 37.65 – 39.96     |
| 0.001)            | College of Business            | 39.13    | 8.81      | 0.72  | 37.71 – 40.55     |
| Í                 | College of Liberal Arts        | 34.83    | 10.39     | 0.77  | 33.30 – 36.36     |
|                   | College of Media and           | 35.27    | 9.15      | 0.70  | 33.89 – 36.65     |
|                   | Entertainment                  |          |           |       |                   |
| Perseverance      | Basic and Applied Sciences     | 17.36    | 5.08      | 0.27  | 16.83 – 17.88     |
| of Effort         | Behavioral and Health Sciences | 16.96    | 5.20      | 0.34  | 16.28 – 17.63     |
| (Tenacity) (F     | College of Business            | 16.43    | 5.31      | 0.43  | 15.57 – 17.28     |
| = 12.751, p <     | College of Liberal Arts        | 19.01    | 5.19      | 0.39  | 18.24 – 19.77     |
| 0.001)            | College of Media and           | 19.62    | 4.96      | 0.38  | 18.87 - 20.36     |
|                   | Entertainment                  |          |           |       |                   |
| Consistency       | Basic and Applied Sciences     | 20.85    | 4.02      | 0.21  | 20.43 - 21.26     |
| of Interest       | Behavioral and Health Sciences | 21.10    | 3.85      | 0.25  | 20.60 - 21.60     |
| (Passion) $(F =$  | College of Business            | 21.73    | 3.71      | 0.30  | 21.13 - 22.33     |
| 8.626, <i>p</i> < | College of Liberal Arts        | 19.83    | 3.95      | 0.29  | 19.25 – 20.41     |
| 0.001)            | College of Media and           | 19.63    | 4.02      | 0.31  | 19.02 - 20.23     |
|                   | Entertainment                  |          |           |       |                   |
| Behavioral        | Basic and Applied Sciences     | 18.58    | 5.12      | 0.27  | 18.05 – 19.11     |
| Activation        | Behavioral and Health Sciences | 18.63    | 5.15      | 0.34  | 17.97 – 19.31     |
| Systems           | College of Business            | 19.39    | 4.59      | 0.37  | 18.65 - 20.13     |
| Drive $(F =$      | College of Liberal Arts        | 17.62    | 5.11      | 0.38  | 16.87 - 18.37     |
| 3.368, p =        | College of Media and           | 17.81    | 4.83      | 0.37  | 17.09 - 18.54     |
| 0.009)            | Entertainment                  |          |           |       |                   |
| Propensity to     | Basic and Applied Sciences     | 27.74    | 9.74      | 0.51  | 26.73 - 28.74     |
| Plan for Long     | Behavioral and Health Sciences | 29.80    | 9.56      | 0.63  | 28.56 – 31.05     |
| Term $(F =$       | College of Business            | 30.12    | 8.90      | 0.73  | 28.68 – 31.56     |
| 5.468, <i>p</i> < | College of Liberal Arts        | 27.03    | 9.52      | 0.71  | 25.63 - 28.43     |
| 0.001)            | College of Media and           | 26.55    | 8.80      | 0.67  | 25.22 - 27.87     |
|                   | Entertainment                  |          |           |       |                   |
| Propensity to     | Basic and Applied Sciences     | 22.07    | 10.67     | 0.56  | 20.96 - 23.17     |
| Plan for Short    | Behavioral and Health Sciences | 24.76    | 10.33     | 0.68  | 23.42 – 26.10     |
| Term $(F =$       | College of Business            | 24.59    | 10.22     | 0.84  | 22.94 – 26.24     |
| 6.449, <i>p</i> < | College of Liberal Arts        | 21.52    | 10.17     | 0.76  | 20.02 - 23.01     |
| 0.001)            | College of Media and           | 20.57    | 9.03      | 0.69  | 19.21 – 21.93     |
|                   | Entertainment                  |          |           |       |                   |

<sup>\*</sup> There were 363 Basic and Applied Sciences, 230 Behavioral and Health Sciences, 150 College

of Business, 180 College of Liberal Arts, and 172 College of Media and Entertainment

When looking at what influences college students to select a specific major, there were significant differences based on college for Interest/Passion (F = 25.356, p < 0.001), Fit with Personality (F = 15.915, p < 0.001), Family Influence (F = 2.407, p = 0.48), Instructor/Teacher (F = 8.100, p < 0.001), Earning Potential (F = 51.257, p < 0.001), Work/Life Balance (F = 4.830, p < 0.001), Avoidance of Specific Courses (F = 7.217, p< 0.001), and Promotional Materials for Major (F = 3.689, p = 0.005). There were no significant differences for Friend Influence (F = 0.501, p = 0.735), Taking a Class (F = 0.501), Taking a Class (F = 01.671, p = 0.154), Advisor/Guidance Counselor (F = 0.393, p = 0.813), and Not Able to Pursue What I Want (F = 0.529, p = 0.714). When looking at these results, students in the College of Behavioral and Health Sciences, Liberal Arts, and Media and Entertainment select a major based on Interest and Passion or Fit with Personality more so than students in the College of Business or Basic and Applied Science. Rather students in the College of Business and Basic and Applied Science are more likely to select a major based on earning potential than students in the College of Behavioral and Health Sciences, Liberal Arts, and Media and Entertainment. Family influence was greatest for those in the College of Business.

Table 11: College Comparison on Influences in the Selection of a Major

| Attitude                  | College*                           | Mean     | Standard   | Std.  | 95%          |
|---------------------------|------------------------------------|----------|------------|-------|--------------|
| 1 100100000               |                                    | 1,120,11 | Deviation  | Error | Confidence   |
|                           |                                    |          | 2011001011 | 21101 | Interval for |
|                           |                                    |          |            |       | Mean         |
| Interest/Passion          | Basic and Applied Sciences         | 5.99     | 1.36       | 0.07  | 5.85 - 6.13  |
| (F = 25.356, p <          | Behavioral and Health Sciences     | 6.32     | 1.07       | 0.07  | 6.18 - 6.46  |
| 0.001)                    | College of Business                | 5.39     | 1.40       | 0.11  | 5.17 - 5.62  |
|                           | College of Liberal Arts            | 6.49     | 0.92       | 0.07  | 6.35 - 6.62  |
|                           | College of Media and Entertainment | 6.51     | 1.02       | 0.08  | 6.35 - 6.66  |
| Fit with                  | Basic and Applied Sciences         | 5.33     | 1.54       | 0.08  | 5.17 - 5.49  |
| Personality ( $F =$       | Behavioral and Health Sciences     | 6.01     | 1.29       | 0.09  | 5.85 - 6.18  |
| 15.915, <i>p</i> <        | College of Business                | 5.33     | 1.60       | 0.13  | 5.07 - 5.59  |
| 0.001)                    | College of Liberal Arts            | 6.05     | 1.06       | 0.08  | 5.89 - 6.21  |
|                           | College of Media and Entertainment | 5.92     | 1.29       | 0.10  | 5.72 - 6.11  |
| Family Influence          | Basic and Applied Sciences         | 3.24     | 1.99       | 0.11  | 3.04 - 3.45  |
| (F = 2.407, p =           | Behavioral and Health Sciences     | 3.25     | 2.05       | 0.14  | 2.98 - 3.51  |
| 0.48)                     | College of Business                | 3.41     | 1.99       | 0.16  | 3.09 - 3.73  |
|                           | College of Liberal Arts            | 2.81     | 1.90       | 0.14  | 2.53 - 3.09  |
|                           | College of Media and Entertainment | 3.04     | 1.91       | 0.15  | 2.75 - 3.33  |
| Instructor/Teacher        | Basic and Applied Sciences         | 3.00     | 2.02       | 0.11  | 2.79 - 3.21  |
| (F = 8.100, p <           | Behavioral and Health Sciences     | 2.97     | 2.04       | 0.13  | 2.70 - 3.23  |
| 0.001)                    | College of Business                | 2.70     | 1.85       | 0.15  | 2.40 - 3.00  |
|                           | College of Liberal Arts            | 3.84     | 2.18       | 0.16  | 3.52 - 4.17  |
|                           | College of Media and Entertainment | 3.06     | 1.95       | 0.15  | 2.77 - 3.36  |
| Earning Potential         | Basic and Applied Sciences         | 5.01     | 1.73       | 0.09  | 4.83 - 5.19  |
| (F = 51.257, p <          | Behavioral and Health Sciences     | 4.38     | 1.91       | 0.13  | 4.13 - 4.63  |
| 0.001)                    | College of Business                | 5.51     | 1.40       | 0.11  | 5.28 - 5.73  |
|                           | College of Liberal Arts            | 3.11     | 1.86       | 0.14  | 2.84 - 3.38  |
|                           | College of Media and Entertainment | 3.98     | 1.86       | 0.14  | 3.70 - 4.26  |
| Work/Life                 | Basic and Applied Sciences         | 3.97     | 1.88       | 0.10  | 3.78 - 4.16  |
| Balance ( $F =$           | Behavioral and Health Sciences     | 4.30     | 1.94       | 0.13  | 4.05 - 4.56  |
| 4.830, p < 0.001          | College of Business                | 4.61     | 1.69       | 0.14  | 4.34 - 4.89  |
|                           | College of Liberal Arts            | 3.89     | 1.87       | 0.14  | 3.62 - 4.17  |
|                           | College of Media and Entertainment | 3.94     | 1.85       | 0.14  | 3.66 - 4.22  |
| Avoidance of              | Basic and Applied Sciences         | 2.22     | 1.62       | 0.09  | 2.05 - 2.38  |
| Specific Courses          | Behavioral and Health Sciences     | 2.71     | 1.89       | 0.12  | 2.47 - 2.96  |
| $(\tilde{F} = 7.217, p <$ | College of Business                | 2.83     | 1.85       | 0.15  | 2.53 - 3.13  |
| 0.001)                    | College of Liberal Arts            | 2.94     | 1.90       | 0.14  | 2.66 - 3.22  |
|                           | College of Media and Entertainment | 2.83     | 1.90       | 0.15  | 2.55 - 3.12  |
| Promotional               | Basic and Applied Sciences         | 2.74     | 1.76       | 0.09  | 2.56 - 2.93  |
| Materials for             | Behavioral and Health Sciences     | 2.55     | 1.87       | 0.12  | 2.31 - 2.79  |
| Major ( $F = 3.689$ ,     | College of Business                | 2.86     | 1.86       | 0.15  | 2.56 - 3.16  |
| p = 0.005)                | College of Liberal Arts            | 2.57     | 1.82       | 0.14  | 2.30 - 2.83  |
|                           | College of Media and Entertainment | 3.17     | 1.78       | 0.14  | 2.91 - 3.44  |
|                           |                                    | I        | İ          | l .   |              |

<sup>\*</sup> There were 363 Basic and Applied Sciences, 230 Behavioral and Health Sciences, 150 College of Business, 180 College of Liberal Arts, and 172 College of Media and Entertainment

## **Discussions and Implications**

The greatest reason that students select a major is due to their interest and passion with the second reason being fit with personality. Fifty-nine percent of those surveyed never changed their major, but for those who did, the greatest reason for changing was interest and passion, followed by fit with personality. Thus, it is important for students to reflect on these aspects when exploring the majors and future careers that align with their interests and passion. Further, considering fit with one's personality would help in the selection of a major. While students seem to seek support from their families about their selection of major, the influence of family in the selection process is minor.

There are gender differences present in this study. Females tend to plan both short-term and long-term more than their male counterparts. They are also more likely to select a major based on taking a class than males. Therefore, majors should consider their target when promoting. Females may be more likely to plan in high school, while males may do so later. However, females are also more likely to select a major based on avoiding specific classes than males. This could be a selling point for some majors hoping to attract females to their major if certain challenging courses at the college are avoided. Further, since females are more likely to declare a major based on females taking a class, it is important to have course offerings at the time of degree selection, either high school or early semesters of college. Males self-assess higher levels of the grit factor for the perseverance of effort (tenacity) than females. This could be the reason that males tdo not back away from challenging courses. Males are also more likely to select a

major based on earning potential. This makes sense since males are more often responsible for being the primary income in a household.

Related to class standing, seniors had a high level of short-term planning and high consistency of interest than freshmen. This makes sense for seniors given the closeness to graduation and the need to plan future steps. Seniors are less influenced by promotional materials than freshman and sophomores which is logical because of the closeness to degree completion. Seniors are no longer interested in paying attention to promotional materials. Freshman exhibited a higher level of interest and passion than seniors and scored themselves higher on perseverance of effort than both juniors and seniors. It is possible that by the time a student makes it to their senior year, they are less passionate or interested as they should have now completed several courses in the subject matter. What they thought might have been involved in the major could be different than expected, or the student may just be more exhausted by the process of earning the degree. This should be further explored in the future to uncover the actual impact. Sophomores were found to be more impulsive than juniors and seniors. It is possible that when it comes to making degree selections, there is pressure by sophomore year to just pick something. Thus, students make more impulsive decisions as it relates to their major during that time of the school year.

The College of Business students reported high levels of concern for achievement, drive, consistency of interest, positivity, and propensity to plan both short-term and long-term. Further, the College of Business scored highest for levels of family influence. The College of Basic and Applied Sciences also scored high on concern for achievement and earning potential. The College of Liberal Arts scored low on concern for achievement,

and positivity, but scored high on perseverance of effort. The College of Media and Entertainment scored high on perseverance of effort and low on planning both short and long-term.

The College of Basic and Applied Science, Liberal Arts, and Media and Entertainment score higher related to interest and passion as well as fit with personality than the College of Business and Basic and Applied Science. However, the College of Business and Basic and Applied Science score higher on degree selection based on earning potential. Each college should embrace these elements and promote their majors based on these factors.

#### Recommendations

Based on these results, multiple recommendations can be provided to those seeking to help students in the selection of a major. Some of these recommendations include:

- The Colleges of Liberal Arts, Media and Entertainment, and Behavioral Health Sciences should promote their degrees based on connecting to one's interests, passions, and fit with personality types.
- College of Business and Basic and Applied Science should promote the earning potential for their degrees, particularly to males who tend to select a major based on earning potential more than females.
- Freshmen should be targeted with promotional materials for all colleges, but seniors should not be targeted.
- The College of Business should appeal to parents since they have the greatest influence in major selection on students.

- The College of Business should appeal to students with high levels of drive and positivity.
- Both College of Business and Basic and Applied Science should promote their majors to students seeking achievement.
- The College of Business should begin pursuing students early since business students have a higher propensity for planning both short and long-term and have a high level of consistency of interest. Particularly females since they have a higher propensity for planning than males.
- If possible, the College of Business and Basic and Applied Science should try to determine what might interest students within the major and identify areas of passion in the majors. Further, finding out what personalities fit with business and then appealing to those personality types since a high percentage of majors are selected for those reasons.

Particularly for the College of Business, there are a number of positive aspects to this study. As listed above, there are a number of suggestions that can be beneficial when recruiting for majors. Aligning with personality types appear to be to those high on positivity and drive as well as those that have a higher propensity to plan. Seeking out not only family support, but also persuading families can be beneficial for the College of Business. Finally, discussing the earning potential, particularly with males is a great way to recruit for majors.

## **Limitations and Future Research**

As with all academic research, the limitations of the study provide opportunities for future research. First, this study was limited since all participants were Middle

Tennessee State University students. To expand the findings of this research, a variety of university college students should be surveyed to increase generalizability. In the survey design, the matrix questions were created and previewed as would be seen on a laptop rather than a mobile device. In doing so, the labels accompanying the Likert-type scales may not have been visible to the first 167 participants if taken via mobile device. The survey instructions were modified once notified of this issue. Individuals that did not pass the quality checks were removed. Also, the selling questions were not modified for the current pool of interest, which led to the intrinsic and extrinsic scales being dropped from the results. Future researchers should label the scale items and review the survey on both mobile devices and laptops prior to emailing the participants to ensure clear instructions are given. In addition, although a variety of constructs were collected in this study, it is possible that there are other constructs that could play a role in degree selection.

### References

- Cappex (2021). Federal Government Publishes More Complete Graduation Rate Data.

  Retrieved from <a href="https://www.cappex.com/articles/blog/government-publishes-graduation-rate-data">https://www.cappex.com/articles/blog/government-publishes-graduation-rate-data</a>.
- Caprara, G., Alessandri, G., Eisenberg, N., Kupfer, A. & Steca, P., & Caprara, M. G., Yamaguchi, S., Fukuzawa, A., & Abela, J. (2012). The Positivity Scale.

  \*Psychological assessment. 24. 701-12.
- Carver, C. S. and White, T. L. (1994). Behavioral Inhibition, Behavioral Aviation, and Affective Responses to Impending Reward and Punishment: The BIS/BAS Scales, *Journal of Personality & Social Psychology*, 67(August), 319-333.
- Creyer, E. H. and William T. Ross (1999), The Development of and Use of a Regret Experience Measure to Examine the Effects of Outcome Feedback on Regret and Subsequent Choice, *Marketing Letters*, 10(November), 373-386.
- Duckworth, A. L., & Quinn, P. D. (2009). Development and Validation of the Short Grit Scale (grit-s). *Journal of Personality Assessment*, 91(2), 166-174.
- Gosling, S. D., Rentfrow, P, J., and Swann Jr., W. B., (2003). A Very Brief Measure of the Big-Five Personality Domains, *Journal of Research in Personality*, 37(December), 504-528.
- Lynch, J. G. JR., Netemeyer, R. G., Spiller, S.A. and Zammit, A., (2010). A

  Generalizable Scale of Propensity to Plan: The Long and the Short of Planning for

  Time and for Money, *Journal of Consumer Research*, 37(June), 1-21.

- Netemeyer, R. G., Burton, S., and Lichtenstein, D. R., (1995). Trait Aspects of Vanity:

  Measurement and Relevance to Consumer Behavior, *Journal of Consumer*Research, 21, 612-626.
- NCES. (January 31, 2021). College enrollment in the United States from 1965 to 2019 and projections up to 2029 for public and private colleges (in millions) [Graph].

  In *Statista*. Retrieved January 12, 2022, from

  <a href="https://www.statista.com/statistics/183995/us-college-enrollment-and-projections-in-public-and-private-institutions/">https://www.statista.com/statistics/183995/us-college-enrollment-and-projections-in-public-and-private-institutions/</a>.
- Oliver, R. L., & Anderson, E. (1994). An empirical test of the consequences of behaviorand outcome-based sales control systems. *Journal of Marketing*, 58(4), 53-67.
- Rook, D. and Fisher, R. J., (1995), Normalize Influences on Impulsive Buying Behavior, *Journal of Consumer Research*, 22, 305-313.
- Student Loan Hero (2021, January 27). A Look at the Shocking Student Loan Debt

  Statistics for 2021. Retrieved from <a href="https://studentloanhero.com/student-loan-debt-statistics">https://studentloanhero.com/student-loan-debt-statistics</a>.

### Appendix A

#### **Recruitment Email**

Subject: Please take this survey so I can graduate!!!

Body of the Email:

Dear xxxx,

My name is Kate Matthews and I'm working on my honors thesis. I need your help by completing this short survey. This survey is an extremely important part of my honors thesis. Without this, I cannot graduate!

**Study Description and Purpose:** This online survey is designed to help examine the reasons students select their major.

**Duration:** Completing the study will take less than 10 minutes.

**Risks & Discomforts:** The risk to you by participating in this survey is no more than can be expected in daily life or normal use of the internet.

## **IRB Approval Details:**

- Primary Investigator: Kate Matthews
- PI Department & College: Marketing; Jones College of Business
- Faculty Advisor: Diane Edmondson
- Protocol Title: Student Degree Selection Process
- Protocol ID: 21-1058 2q Approval Date: 10/27/2020 Expiration Date: 10/31/2021

Benefits: There are no direct benefits to you. Nonetheless, the intention of the study is to provide insight to the researcher regarding why students select a specific major.

Contact Information: If you have any questions you can contact Kate Matthews at <a href="mailto:knm5z@mtmail.mtsu.edu">knm5z@mtmail.mtsu.edu</a> or Diane Edmondson at <a href="mailto:diane.edmondson@mtsu.edu">diane.edmondson@mtsu.edu</a>, <a href="mailto:(Marketing Department">(Marketing Department</a>, College of Business, Middle Tennessee State University). Research at Middle Tennessee State University that involves human participants is carried out under the oversight of an Institutional Review Board. You will be given a chance to read the entire informed consent to assist you make a final

You will be given a chance to read the entire informed consent to assist you make a final determination.

Please access the survey by clicking the Qualtrics link in the bottom of this email.

Thanks in advance for participating in this survey!

### Appendix B

# **Honors Thesis - Degree Selection- Final**

| Start of | Block: Informed Consent   |
|----------|---|
| Q1 Are   | you 18 years old or older?  |
|          | Yes, I am 18 years old or older (1)   |
|          | No, I am under 18 years old (2)   |
| Skip To: | End of Survey If Are you 18 years old or older? = No, I am under 18 years old |

Q2 Thank you so much for your participation in this short survey!

#### **Information and Disclosure Section:**

**Purpose:** This research project is designed to help us better understand why students choose the majors that they do.

**Description:** This project involves the completion of an online survey. As part of this study, you will be presented with a series of questions. Consider the external and internal factors that persuaded you to choose your major and use that when answering these questions. There are no right or wrong answers to any of the questions. Please answer the questions honestly and thoughtfully; the value of this research depends on you. You must answer every question.

**Duration:** The whole activity should take less than 15 minutes.

Here are your rights as a participant: Your participation in this research is voluntary. You may stop the survey at any time. If you leave an item blank by either not clicking or entering a response, you may be warned that you missed one, just in case it was an accident. Some items may require a response to accurately present the survey.

**Risks & Discomforts:** The risk to you by participating in this survey is no more than can be expected in daily life or normal use of the internet.

**Benefits:** Although there will be no direct benefits due to taking part in this study, the intention of the study is to provide insight to the researcher regarding attitudes and behaviors towards cosmetics.

**Identifiable Information:** All responses are anonymous. You will NOT be asked to provide identifiable personal information. Your answers will not be tied to you in any way. Internet Protocol addresses will not be collected by the researcher. Responses will be reported only by grouping answers.

Compensation: There is no compensation by the investigators for participating in this study.

**Confidentiality:** All efforts, within reason, will be made to keep your personal information private but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, if you or someone else is in danger or if we are required to do so by law.

Contact Information: If you should have any questions about this research study or possibly injury, please feel free to contact Kate Matthews by email at knm5z@mtmail.mtsu.edu OR Diane Edmondson by email at diane.edmondson@mtsu.edu. You can also contact the MTSU Office of compliance via telephone

(615 494 8918) or by email (compliance@mtsu.edu).

Thank you for agreeing to participate in this project. We greatly appreciate your help! Please mark the circle below to indicate you give your consent to using the information provided for this research. THIS PAGE MAY BE PRINTED AND KEPT BY EACH PARTICIPANT Research at Middle Tennessee State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Middle Tennessee State University, 2269 Middle TN Blvd, Murfreesboro, TN 37132, Email: irb information@mtsu.edu, Tel: 615 898 2400

| ▼ Accounting (4) Work and Family Studies (Sociology) (222)  |
|---|
| Q4 What is your current major?  |
| Start of Block: Major Selection   |
| End of Block: Informed Consent  |
| Skip To: End of Survey If We care about the quality of our data. In order for us to get the most accurate measures of your = I can't promise either way   |
| Skip To: End of Survey If We care about the quality of our data. In order for us to get the most accurate measures of your = $I$ will not provide my best answers   |
| O I can't promise either way (3)  |
| I will not provide my best answers (2)  |
|   |
| I will provide my best answers (1)  |
| Q3 We care about the quality of our data. In order for us to get the most accurate measures of your opinions, it is important that you thoughtfully provide your best answers to each question in this survey. Do you commit to thoughtfully provide your best answers to each question in this survey? |
| Skip To: End of Survey If Thank you so much for your participation in this short survey!Information and Disclosure Section: = $I$ wish not to participate in the above survey   |
| I wish not to participate in the above survey (2)   |
| I give my consent to use the information provided for this research (1)   |
| Again, your participation is greatly appreciated, and thank you for taking the time to complete this survey.  |
| Email: irb_information@mtsu.edu, Tel: 615 898 2400  |



Q5 Please indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 = Strongly Agree) with the following statements regarding: What influenced your decision in selecting your <u>current major</u>?

|  | 1 (1)   | 2 (2)      | 3 (3)      | 4 (4)      | 5 (5)      | 6 (6)      | 7 (7)      |
|--|---------|------------|------------|------------|------------|------------|------------|
| Interest/Passion (2)                       | 0       | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\circ$    | $\circ$    |
| Fit with personality (3)                   | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |
| Family influence (4)                       | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |
| Friend influence (14)                      | 0       | $\circ$    | 0          | 0          | 0          | $\circ$    | $\circ$    |
| Taking a class (5)                         | 0       | $\circ$    | $\bigcirc$ | $\bigcirc$ | $\circ$    | $\bigcirc$ | $\circ$    |
| Instructor/Teacher (6)                     | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |
| Advisor/Guidance<br>Counselor (7)          | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |
| Earning potential (8)                      | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |
| Work/Life balance (12)                     | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\bigcirc$ |
| Not able to pursue what I really want (11) | $\circ$ | $\bigcirc$ | $\circ$    | $\bigcirc$ | $\circ$    | $\circ$    | $\circ$    |
| Avoidance of specific courses (13)         | $\circ$ | $\bigcirc$ | $\circ$    | $\bigcirc$ | $\circ$    | $\circ$    | $\bigcirc$ |
| Promotional<br>materials for major<br>(15) | 0       | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |

\_\_\_\_\_

| Q6 Have you ever changed your major?                               |
|--|
| O Yes (1)  |
| O No (2)   |
| Display This Question:   |
| If Have you ever changed your major? = Yes                         |
| Q7 How many times have you changed your major?                     |
| O 1 time (1)   |
| 2 times (2)  |
| 3 times (3)  |
| ○ 4 times (4)  |
| 5+ times (5)   |
|  |
| Display This Question:  If Have you ever changed your major? = Yes |
| Q8 What was your original major?                                   |
| ▼ Accounting (4) Work and Family Studies (Sociology) (222)         |
|  |
| Display This Question:   |
| If Have you ever changed your major? — Ves                         |

| Q9 What led you to change from your original major? (Select all that apply) |   |  |  |  |  |  |
|---|---|--|--|--|--|--|
|   | Interest/Passion (1)                                  |  |  |  |  |  |
|   | Fit with personality (2)                              |  |  |  |  |  |
|   | Family influence (3)                                  |  |  |  |  |  |
|   | Friend influence (4)                                  |  |  |  |  |  |
|   | Taking a class in my original major I didn't like (5) |  |  |  |  |  |
|   | Taking a class outside my major that I liked (12)     |  |  |  |  |  |
|   | Instructor/Teacher (6)                                |  |  |  |  |  |
|   | Advisor/Guidance Counselor (7)                        |  |  |  |  |  |
|   | Earning potential (8)                                 |  |  |  |  |  |
|   | Work/Life balance (9)                                 |  |  |  |  |  |
|   | Avoidance of specific courses (10)                    |  |  |  |  |  |
|   | Promotional materials for new major (13)              |  |  |  |  |  |
|   | Other, please specify: (11)                           |  |  |  |  |  |
|   |   |  |  |  |  |  |

| Q10 Have you ever taken a personality test as it relates to your potential career?                                    |
|---|
| Yes, if so provide how long ago (1)   |
| O No (2)  |
|   |
| Q11 Have you ever visited the a Career Development Center (or similar service) regarding your major or future career? |
| Yes, please advise at what class standing you visited (i.e., freshman, sophomore, junior, senior) (1)                 |
| O No (2)  |
| End of Block: Major Selection   |
| Start of Block: Personality Inventory - Gosling et al '03 - MS book p17   |

Q12 Please indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 =

Strongly Agree) with the following statements. I see myself as...

|   | 1(1)    | 2 (2)   | 3 (3)   | 4 (4)      | 5 (5)      | 6 (6)   | 7 (7)   |
|---|---------|---------|---------|------------|------------|---------|---------|
| Extraverted, enthusiastic (that is, sociable, assertive, talkative, active, NOT reserved or shy) (1)                  | 0       | 0       | 0       | 0          | 0          | 0       | 0       |
| Agreeable, kind (that is, trusting, generous, sympathetic, cooperative, NOT aggressive or cold) (2)                   | 0       | $\circ$ | $\circ$ | $\bigcirc$ | $\bigcirc$ | $\circ$ | $\circ$ |
| Dependable, organized (that is, hard-working, responsible, self-disciplined, thorough, NOT careless or impulsive) (3) | 0       | $\circ$ | $\circ$ | $\circ$    | $\circ$    | $\circ$ | $\circ$ |
| Emotionally stable, calm (that is, relaxed self-confident, NOT anxious, moody, easily upset, or easily stressed) (4)  | 0       | $\circ$ | $\circ$ | $\circ$    | $\circ$    | $\circ$ | $\circ$ |
| Open to experience, imaginative (that is curious, reflective, creative, deep, openminded, NOT conventional) (5)       | $\circ$ | $\circ$ | $\circ$ | $\bigcirc$ | $\bigcirc$ | $\circ$ | $\circ$ |
| Please select Strongly Disagree for this statement (7)  | $\circ$ | $\circ$ | $\circ$ | $\circ$    | $\circ$    | $\circ$ | 0       |

End of Block: Personality Inventory - Gosling et al '03 - MS book p17

Start of Block: Concern for Achievement (Vanity) - Netemeyer et al 1995 - MS book p64



Q13 Please indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 = Strongly Agree) with the following statements.

|  | 1(1)    | 2 (2)   | 3 (3)      | 4 (4)      | 5 (5)      | 6 (6)      | 7 (7)      |
|--|---------|---------|------------|------------|------------|------------|------------|
| Personal achievements are an obsession with me. (1)                    | 0       | $\circ$ | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\bigcirc$ |
| I want others to look up to me for my accomplishments. (2)             | $\circ$ | $\circ$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| I am more concerned with personal success than most people I know. (3) | 0       | $\circ$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Achieving greater success than my peers is important to me. (4)        | 0       | $\circ$ | $\circ$    | $\circ$    | $\bigcirc$ | $\circ$    | $\bigcirc$ |
| I want my achievements to be recognized by others. (5)                 | 0       | $\circ$ | $\circ$    | $\circ$    | $\circ$    | $\circ$    | $\circ$    |

End of Block: Concern for Achievement (Vanity) - Netemeyer et al 1995 - MS book p64

Start of Block: Positivity (Caprara et al 2012) - 6 - reverse coded



Q14 Please indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 = Strongly Agree) with the following statements.

|  | 1(1) | 2 (2)      | 3 (3)      | 4 (4)      | 5 (5)   | 6 (6)      | 7 (7)      |
|--|------|------------|------------|------------|---------|------------|------------|
| I have great faith in the future. (1)                      | 0    | $\bigcirc$ | $\bigcirc$ | $\circ$    | $\circ$ | $\circ$    | $\bigcirc$ |
| I am satisfied with my life. (2)                           | 0    | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\circ$ | $\bigcirc$ | $\bigcirc$ |
| Others are generally here for me when I need them. (3)     | 0    | $\circ$    | $\circ$    | $\bigcirc$ | $\circ$ | $\bigcirc$ | $\circ$    |
| I look forward to the future with hope and enthusiasm. (4) | 0    | $\circ$    | $\bigcirc$ | $\circ$    | $\circ$ | $\circ$    | $\circ$    |
| On the whole, I am satisfied with myself. (5)              | 0    | $\circ$    | $\bigcirc$ | $\bigcirc$ | $\circ$ | $\bigcirc$ | $\circ$    |
| At times, the future seems unclear to me. (6)              | 0    | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\circ$ | $\bigcirc$ | $\circ$    |
| I feel I have many things to be proud of. (7)              | 0    | $\bigcirc$ | $\bigcirc$ | $\circ$    | $\circ$ | $\bigcirc$ | $\circ$    |
| I generally feel confident in myself. (8)                  | 0    | $\circ$    | $\circ$    | $\circ$    | $\circ$ | $\circ$    | $\circ$    |

End of Block: Positivity (Caprara et al 2012) - 6 - reverse coded

Start of Block: Motivation (Int - 5 Matlin '17 & Oliver '94) (Ext - 3 Oliver '94)



Q15 Please indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 = Strongly Agree) with the following statements.

|  | 1(1) | 2 (2)      | 3 (3)   | 4 (4)   | 5 (5)   | 6 (6)   | 7 (7)   |
|--|------|------------|---------|---------|---------|---------|---------|
| When I perform well, I know it's because of my own desire to achieve.  (1)   | 0    | 0          | 0       | 0       | 0       | 0       | 0       |
| I obtain a sense of accomplishment from my work. (2)   | 0    | $\bigcirc$ | $\circ$ | $\circ$ | $\circ$ | $\circ$ | $\circ$ |
| Becoming successful in sales is something that I want to do for me.  (3)   | 0    | $\circ$    | 0       | 0       | 0       | 0       | 0       |
| I sell because of the<br>feeling of<br>performing a useful<br>service. (4)   | 0    | $\circ$    | 0       | 0       | 0       | 0       | 0       |
| I feel a sense of<br>personal growth and<br>development in my<br>work. (11)  | 0    | 0          | 0       | 0       | 0       | 0       | 0       |
| If it weren't for the money, I would not be in a selling job.  (5)   | 0    | $\circ$    | 0       | 0       | 0       | 0       | 0       |
| I sell because I get<br>paid to sell. (6)  | 0    | $\circ$    | $\circ$ | $\circ$ | $\circ$ | $\circ$ | $\circ$ |
| After a long hard<br>day, I realize that if<br>it weren't for the<br>money, I wouldn't<br>put up with this job.<br>(7) | 0    | 0          | 0       | 0       | 0       | 0       | 0       |

End of Block: Motivation (Int - 5 Matlin '17 & Oliver '94) (Ext - 3 Oliver '94)

**Start of Block: Grit – Duckworth** 



Q16 Indicate the extent to which the following statements are like you (where 1 = Not at all like me and 7 = very much like me).

|  | 1 (1) | 2 (2)   | 3 (3)   | 4 (4)   | 5 (5) | 6 (6)   | 7 (7)   |
|--|-------|---------|---------|---------|-------|---------|---------|
| I often set a goal but later choose to pursue a different one.   | 0     | 0       | 0       | 0       | 0     | 0       | 0       |
| I have been<br>obsessed with a<br>certain idea or<br>project for a<br>short time but<br>later lost<br>interest. (2)    | 0     | 0       | 0       | 0       | 0     | 0       | 0       |
| I have difficulty<br>maintaining my<br>focus on<br>projects that<br>take more than<br>a few months to<br>complete. (3) | 0     | 0       | 0       | 0       | 0     | 0       | 0       |
| New ideas and projects sometimes distract me from previous ones. (4)   | 0     | 0       | 0       | 0       | 0     | 0       | 0       |
| I finish whatever I begin. (5)   | 0     | $\circ$ | 0       | 0       | 0     | 0       | $\circ$ |
| Setbacks don't discourage me. (6)  | 0     | $\circ$ | $\circ$ | $\circ$ | 0     | $\circ$ | $\circ$ |
| I am diligent.<br>(7)  | 0     | $\circ$ | 0       | 0       | 0     | $\circ$ | $\circ$ |
| I am a hard worker. (8)  | 0     | $\circ$ | $\circ$ | $\circ$ | 0     | $\circ$ | $\circ$ |

**End of Block: Grit - Duckworth** 



Q17 Indicate the extent to which the following statements are like you (where 1 = Not at all like me and 7 = Very much like me).

|  | 1 (1) | 2 (2)   | 3 (3)   | 4 (4)   | 5 (5)   | 6 (6)   | 7 (7)   |
|--|-------|---------|---------|---------|---------|---------|---------|
| When I want<br>something, I<br>usually go all-out<br>to get it. (1)              | 0     | 0       | 0       | 0       | 0       | 0       | 0       |
| I go out of my<br>wat to get things I<br>want. (9)                               | 0     | $\circ$ | $\circ$ | $\circ$ | $\circ$ | $\circ$ | $\circ$ |
| If I see a chance<br>to get something I<br>want, I move on it<br>right away. (2) | 0     | $\circ$ | 0       | 0       | $\circ$ | $\circ$ | $\circ$ |
| When I go after<br>something, I use a<br>"no-hold-barred"<br>approach (3)        | 0     | 0       | 0       | 0       | 0       | 0       | $\circ$ |

End of Block: BAS - Drive (Carver & White '94) MS book p221

Start of Block: Propensity to Plan (Lynch et al. 2010) MS book p227 ST6/LT6



Q18 Indicate the extent to which the following statements are like you (where 1 = Not at all like me and 7 = very much like me).

|   | 1 (1) | 2 (2) | 3 (3)   | 4 (4) | 5 (5)   | 6 (6)   | 7 (7) |
|---|-------|-------|---------|-------|---------|---------|-------|
| I set goals fo rthe<br>next few days for<br>what I want to<br>achieve with my<br>time. (1)  | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I decide beforehand<br>how my time will be<br>used in the next few<br>days. (9)   | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I actively consider<br>the steps I need to<br>take to stick to my<br>time schedule for the<br>next few days. (10)                   | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I consult my planner<br>to see how much<br>time I have left for<br>the next few days.<br>(2)  | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I like to look at my<br>planner for the next<br>few days in order to<br>get a better view of<br>using my time in the<br>future. (3) | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I makes me feel<br>better to have my<br>time planned out in<br>the next few days.<br>(11)   | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I set goals for the<br>next 1 to 2 months<br>for what I want to<br>achieve with my<br>time. (12)                                    | 0     | 0     | 0       | 0     | 0       | 0       | 0     |
| I decide beforehand<br>how my time will be<br>used in the next 1 to<br>2 months. (13)   | 0     | 0     | $\circ$ | 0     | $\circ$ | $\circ$ | 0     |
| I actively consider<br>the steps I need to<br>take to stick to my<br>time schedule in the<br>next 1 to 2 months.<br>(14)            | 0     | 0     | 0       | 0     | 0       | 0       | 0     |

| I consult my planner<br>to see how much<br>time I have left for<br>the next 1 to 2<br>months. (15)                          | 0 | $\circ$ | 0 | 0 | 0 | 0 | 0 |
|---|---|---------|---|---|---|---|---|
| I like to look at my planner for the next 1 to 2 months in order to get a better view of using my time in the future.  (16) | 0 | 0       | 0 | 0 | 0 | 0 | 0 |
| I makes me feel<br>better to have my<br>time planned out for<br>the next 1 to 2<br>months. (17)                             | 0 | 0       | 0 | 0 | 0 | 0 | 0 |

End of Block: Propensity to Plan (Lynch et al. 2010) MS book p227 ST6/LT6

Start of Block: Mod. Impulsiveness (Rook & Fisher '95) MS p74 -1,2,3,6,7,9



Q20 Indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 = Strongly Agree) with the following statements. With regards to my current major..

|   | 1(1) | 2 (2)   | 3 (3)   | 4 (4)   | 5 (5)      | 6 (6)      | 7 (7)   |
|---|------|---------|---------|---------|------------|------------|---------|
| I made my<br>decision<br>spontaneously. (9)   | 0    | 0       | 0       | 0       | 0          | 0          | 0       |
| "Just do it"<br>describes the way<br>I decided. (17)                                | 0    | $\circ$ | $\circ$ | $\circ$ | $\circ$    | 0          | $\circ$ |
| I decided without thinking. (10)  | 0    | $\circ$ | $\circ$ | $\circ$ | $\bigcirc$ | $\bigcirc$ | $\circ$ |
| Sometimes I feel<br>like I made my<br>decision on the<br>spur of the<br>moment. (2) | 0    | 0       | 0       | 0       | 0          | 0          | 0       |
| I made my decision according to how I felt at the moment. (16)                      | 0    | 0       | 0       | 0       | 0          | 0          | 0       |
| Sometimes I am a bit reckless about my decisions. (15)                              | 0    | $\circ$ | $\circ$ | $\circ$ | $\circ$    | 0          | $\circ$ |

End of Block: Mod. Impulsiveness (Rook & Fisher '95) MS p74 -1,2,3,6,7,9

Start of Block: Regret Experience (Creyer & Ross '99) MS p445



Q21 Indicate the extent to which you agree or disagree (where 1 = Strongly Disagree and 7 = Strongly Agree) with the following statements. With regards to my current major...

|  |     |  |   | 6 (6) | 7 (7)      |  |  |
|--|-----|--|---|-------|------------|--|--|
| an error in judgement when selecting my current major. (17)  I am not confident I made the best choice based on the information I now have available. (10)  I should have chosen a different major. (2)  I really feel that I was making an error when I decided my current major. (16)  End of Block: Regret Experience (Creyer & | 0   |  | 0 | 0     | 0          |  |  |
| confident I made the best choice based on the information I now have available. (10)  I should have chosen a different major. (2)  I really feel that I was making an error when I decided my current major. (16)  End of Block: Regret Experience (Creyer &   | 0 ( |  | 0 | 0     | $\bigcirc$ |  |  |
| chosen a different major. (2)  I really feel that I was making an error when I decided my current major. (16)  Cond of Block: Regret Experience (Creyer &  | 0 ( |  | 0 | 0     | 0          |  |  |
| I was making an error when I decided my current major.  (16)  Cond of Block: Regret Experience (Creyer &   | 0 0 |  | 0 | 0     | $\circ$    |  |  |
|  | 0 0 |  | 0 | 0     | 0          |  |  |
| End of Block: Regret Experience (Creyer & Ross '99) MS p445  Start of Block: Wish You Knew / Influence   |     |  |   |       |            |  |  |
| Q22 What information do you wish you had when originally selecting your major?   |     |  |   |       |            |  |  |
| Q22 What information do you wish you had when originally selecting your major?   |     |  |   |       |            |  |  |

| Q23 What information do you feel would be most influential to others when selecting a major? |
|--|
|  |
|  |
| End of Block: Wish You Knew / Influence  |
| Start of Block: Demographics   |
| Q24 What is your gender?   |
| Male (1)   |
| Female (2)   |
| Other (3)  |
| Prefer Not to Answer (4)   |
|  |
| Q25 What is your year of birth?  |
| ▼ 2004 (2) 1959 or before (48)   |

| Q26 What is your class standing?                              |
|---|
| O Freshman (1)  |
| O Sophomore (2)   |
| O Junior (3)  |
| O Senior (4)  |
| Graduate Student (5)  |
|   |
| Q27 How many credit hours do you typically take per semester? |
| C Less than 6 hours (1)                                       |
| O 6 - 11 hours (2)  |
| 12 - 17 hours (3)   |
| O More than 17 hours (4)                                      |
|   |
| Q28 Are you currently a student athlete?                      |
| O Yes (1)   |
| O No (2)  |
| Display This Question:  |
| If Are you currently a student athlete? = Yes                 |

Q29 Please select what sport(s) you play.

| O Baseball (1)  |  |  |  |  |  |
|---|--|--|--|--|--|
| O Softball (11)   |  |  |  |  |  |
| O Basketball (2)  |  |  |  |  |  |
| O Football (3)  |  |  |  |  |  |
| OGolf (4)   |  |  |  |  |  |
| O Track (5)   |  |  |  |  |  |
| O Volleyball (6)  |  |  |  |  |  |
| O Soccer (7)  |  |  |  |  |  |
| O Tennis (8)  |  |  |  |  |  |
| O Dance (9)   |  |  |  |  |  |
| Cheerleading (10)   |  |  |  |  |  |
| Other, please specify (12)  |  |  |  |  |  |
|   |  |  |  |  |  |
| Q30 What type of classes do you have this semester? (Select all that apply) |  |  |  |  |  |
| In-person (1)   |  |  |  |  |  |
| Remote (e.g., Zoom) (2)   |  |  |  |  |  |
| Online (asychronous) (3)  |  |  |  |  |  |
| Hybrid (4)  |  |  |  |  |  |
|   |  |  |  |  |  |

| Q31 What is your employment status?                                     |
|---|
| O Part-time (1)   |
| O Full-time (2)   |
| O Military (3)  |
| O Not currently working (4)   |
| Skip To: Q33 If What is your employment status? = Not currently working |
| Q32 What is your current work environment?                              |
| Remote (1)  |
| O In-person (3)   |
| Mix of Remote and In-person (4)   |
| Q33 How many hours do you volunteer per month?                          |
| O I don't currently volunteer (1)                                       |
| 1-4 hours per month (5)   |
| 5-9 hours per month (6)   |
| 10-14 hours per month (2)   |
| 15-19 hours per month (3)   |
| 20 or more hours per month (4)  |

| Q34 What is your marital status?   |
|--|
| O Single, never married (1)  |
| O Single, but in a committed relationship (2)                                      |
| O Married (3)  |
| ○ Widowed (4)  |
| O Divorced (5)   |
| O Separated (6)  |
|  |
| Q35 Are you Spanish, Hispanic, or Latino or none of these (select all that apply). |
| Spanish (1)  |
| Hispanic (2)   |
| Latino (3)   |
| ⊗None of these (4)   |
|  |

| Q36 Cho                       | pose one or more races that you consider yourself to be: |  |  |  |
|-------------------------------|--|--|--|--|
|                               | White (1)  |  |  |  |
|                               | Black or African American (2)                            |  |  |  |
|                               | American Indian or Alaska Native (3)                     |  |  |  |
|                               | Asian (4)  |  |  |  |
|                               | Native Hawaiian or Pacific Islander (5)                  |  |  |  |
|                               | Other (please specify) (6)                               |  |  |  |
|                               |  |  |  |  |
| Q37 On                        | average, what is your <b>personal</b> income?            |  |  |  |
| I have no personal income (1) |  |  |  |  |
| O Below \$10,000 (2)          |  |  |  |  |
| \$10,000 - \$24,999 (3)       |  |  |  |  |
| \$25,000 - \$49,999 (4)       |  |  |  |  |
| \$50,000 - \$74,999 (5)       |  |  |  |  |
| Over \$75,000 (6)             |  |  |  |  |
|                               |  |  |  |  |

| Q38 How are you currently paying for your education? |   |  |  |  |
|--|---|--|--|--|
|  | Personally (1)  |  |  |  |
|  | Parents (2)   |  |  |  |
|  | Employer (7)  |  |  |  |
|  | Scholarships (3)  |  |  |  |
|  | Grants (4)  |  |  |  |
|  | Income-based Loan (e.g., Subsidized Stafford, Perkins) (5)  |  |  |  |
|  | Non-Income-based Loans (8)  |  |  |  |
| *  |   |  |  |  |
| Q39 Y  | What is your current GPA? (4.0 Scale)   |  |  |  |
| -  |   |  |  |  |
| Q40 I  | Please leave any additional information that you would like us to know in the space provided below. |  |  |  |
| -  |   |  |  |  |

**End of Block: Demographics**