

## ABSTRACT

We sought to understand the motivations of undergraduate students who pursue multiple majors or degrees. Utilizing a sequential, exploratory, mixed-methods design, in phase one we interviewed 37 students currently pursuing multiple majors to determine themes in their expressed motivations. Following the development of themes, we administered a survey instrument to a random sample of undergraduate students at SMU to determine the prevalence of each motivation theme within the student body. Results reveal that participants became aware of multiple-majoring both before arriving at the institution and at the institution. Participants cited differentiation, field and institutional contexts, financial concerns, intrinsic aspects, and opportunities as factors that encouraged them to pursue multiple majors. Finally, the research reveals several advantages and disadvantages of having multiple majors. We make recommendations for future research and practice related to orientation programs, academic advisors, advising centers, admissions offices, and academic curriculum committees.

## LITERATURE REVIEW

### Overview

- Over the last 2 decades, it has become more common for U.S. college students to graduate with more than 1 major (Del Rossi & Hersch, 2016; Ewing et al., 2018; Zafar, 2012)
- Educational policymakers measure university success (to some extent) by the percentage of students who graduate within 4 years (Del Rossi & Hersch, 2008; Yue & Fu, 2017)
  - Yue & Fu (2017) found a negative relationship between double-majoring and graduating in any given term
- Thus, there is a tension between the rising numbers of students choosing multiple majors and the goal of policymakers and university administrators to graduate students within 4 years (Yue & Fu, 2017)

### Demographics of Multiple-Major Students

- White students are more likely to complete multiple majors than students of color (Ewing et al., 2018; Pitt & Tepper, 2012)
- International students and first-generation students are less likely to pursue multiple majors compared to domestic students or continuing-generation students (Russell et al., 2008; Ewing et al., 2018; Pitt & Tepper, 2012)
- Students who take Advanced Placement (AP) courses in high school and receive credit for them are more likely to pursue multiple majors (Ewing et al., 2018)

### Financial Motivations of Multiple Major Students

- Expectations of future earnings and financial security resulting from steady employment are important factors considered by students as they choose their majors (Wiswall & Zafar, 2015; Nunley et al., 2016)

### Personal, Interpersonal, & Environmental Motivations

- Researchers have identified personality as a predictor of major choice (Kember et al., 2010)
- Thus, students often choose majors that fulfill their personal inclinations
- Students also base their choice of major on environmental factors, such as the opinions of parents /peers and societal impact (Aydede, 2020; Poldin et al., 2015; Davies et al., 2013)

## RESEARCH QUESTIONS

- How do college students pursuing multiple majors first become aware of this possibility?
- What are the primary motivations (intrinsic or extrinsic) for college students to pursue multiple majors?
- What are the perceived advantages and disadvantages to multiple-majoring?

## METHODS

### Design

- We utilized a sequential, exploratory, mixed-methods design
  - Note: this poster covers phase 1 of the research. See a separate poster for a discussion of phase 2
- Using a constructivist paradigm, we sought to understand when students became aware of multiple-majoring, the motivations behind the decision to pursue multiple majors, and the advantages and disadvantages of that decision

### Recruitment & Participants

- A roster method was used to identify the accessible population
- A random sample of 200 students (20% of the sample) were invited to participate in a 45-minute, semi-structured interview
- A total of 37 students were interviewed

### Data Collection & Analysis

- We used a demographic questionnaire and a semi-structured interview protocol
- Ongoing and iterative data analysis was performed by the research team, using researcher journals, field notes from each interview, and peer de-briefing sessions
- Utilizing interview transcripts and Dedoose computer software, thought units were organized into categories, which were then organized into emergent themes answering the primary research questions

## FINDINGS & RESULTS

While analyzing findings related to the first research question, two main categories of themes were found: *where* and *who/how*. At Institution & Before along with family, peer, self, university representative were the themes recognized when exploring the awareness of the concept of multiple majoring. While students learnt about the concept in a variety of ways, their motivations for multiple majoring were also diverse.

Primary motivations expressed by students include need for differentiation, field and institutional context, financial and intrinsic motivations along with the prospect of opportunity. The need to differentiate oneself from other students or interview candidates represented a significant motivation for participants in choosing to pursue multiple majors. As Bastet emphasized, “I chose to have multiple majors] so that I can be competitive in the field against all the younger students..... I am re-entering into an entire new field. I need to have that edge.” Similarly, Olivia said, “I . . . wanted to use a double major to stick out from the crowd recruiting-wise or job search-wise. So that’s definitely the main reason that I chose to have multiple majors.”

Madison, as well as 10 other participants, emphasized the ease of pursuing multiple majors, commenting that “. . . fashion media and journalism majors required the same classes, so it was easy for me to just also pick up that major.”

The table below details the themes regarding advantages and disadvantages that were relevant. For example, participants expressed not only flexibility in career choice, but also increased opportunities by making them more competitive. These opportunities were mentioned as available for both career and graduate school opportunities. For instance, Julia described, “I feel that a lot of the experience I gain from one of the majors makes me a much more competitive applicant for the other major.” Anna Rose recounted similar feelings: “So, I feel like I have a leg up.” experienced while multiple majoring.

Theme	Start code	Theme description
<b>Advantages</b>		
Career	career competitiveness, career flexibility, better candidate for job opportunities, future career trajectory, preparedness for real world, transferable skills	Over two-thirds of participants described different avenues for pursuing multiple majors and the benefit it provides their professional aspirations. Participants focused on the skills that their multiple majors provide, while others mentioned how multiple majors help them stand out and get their foot in the door. Additionally, participants appreciated the flexibility that multiple majors provide when considering their future career trajectory.
Diverse interactions and experiences	applicability of one field to another, same things from different perspectives, well-roundedness, ability to explore more than one interest/skill	Over two-thirds of participants described how pursuing multiple majors grants them more diverse interactions and experiences throughout their time in school. Sixteen participants described how their multiple majors contribute to their well-roundedness as individuals, which constitutes a major advantage in the search for a job after graduation. Additionally, our participants appreciated the overlap between their majors, which allows them to approach and solve problems from multiple perspectives and the ability to explore more than one interest or skill.
Graduate school/academic	graduate school opportunities, getting more for your money, coursework opportunities, more resources (advising, etc.), scholarships	Eight participants spoke of the advantage that multiple-majoring provides when preparing for graduate school applications. Moreover, seven spoke of the desire to receive the most academic opportunities for their money as an undergraduate. Finally, two participants spoke of the influence that scholarships held on their decision to multiple-major.
Positive emotional impacts	opportunity for mental breaks, feeling of reward, focus shift to reduce stress, enjoyment, relieves pressure to be exceptional, balance	Half of our participants mentioned the positive emotional impacts that pursuing multiple majors provides, from reducing stress to increasing the enjoyment felt in their coursework. Additionally, participants felt that pursuing multiple majors increases the balance in their academic life, provides greater opportunities for mental breaks from one subject, and reduces the pressure for them to perform exceptionally in one major.
Social	social	Over one-third of participants described the social benefits of multiple-majoring in terms of the opportunity to expand their social and professional networks and meet diverse groups of people. Participants specifically spoke of the opportunity to build a peer support network on campus from their multiple communities.
Unique	combination of majors provides unique skills, standout/unique	Fifteen participants mentioned that their multiple majors provides them with unique skills that they could not have learned through only one of those majors. These unique skills further help differentiate them from other students.
<b>Disadvantages</b>		
Academic	limits academic opportunities, logistics of scheduling and advising, lack of understanding	Multiple-major students described the negative impact that can result when their attention is divided across interests. For some, this means not getting into one major as deeply as they would like, while for others, it means giving up opportunities to explore electives. Multiple majors add the stress of combining degree requirements across schools and having to meet with multiple advisors.
Negative emotional impacts	increased stress, passion loss, tired, exhausted, strenuous	One-third of participants described negative emotional impacts as a disadvantage of multiple-majoring. Negative emotional impacts include three categories: increased stress, passion loss, and tiredness (listed in order of prominence in the sample).
Professional	career trajectory, career decisions, professional network challenges	Seven participants described professional disadvantages to multiple majors. Participants described challenges with developing professional networks due to different values and timelines, while others discussed struggles in determining a clear career trajectory that gives consideration to all of their degrees.
Social	sacrifice extracurriculars, social scene, social circle	Almost half of the participants described social disadvantages to multiple-majoring. Specific examples include sacrificing extracurricular involvement due to coursework demands and the challenges related to student social circles and scenes.
Time	time commitments	Participants described time as a scarcity or constraint while multiple-majoring. Time was discussed as the daily grind, as the overall academic load/schedules, and at various durations from semester to calendar year through until graduation. Some participants discussed the year-round time commitments or lack of time for internships and social activity.

## DISCUSSION & IMPLICATIONS

### Early Exposure and Declaring Process

Ensuring that students are presented with the opportunity of multiple-majoring early in their educational experience remains an important target for higher education.

**Recommendation:** Orientation programs and premajor academic advisors should present viable options to students for multiple-majoring early in their university experience. In addition to limiting graduation delays, presenting students with the option to declare multiple majors earlier in their academic career may help to reduce stress and anxiety caused by overloading courses, which was mentioned as a disadvantage of multiple-majoring by some participants. Relatedly, it is recommended that introductory classes within each major utilize class discussion to spark interest within students to pursue their particular majors. Indeed, five participants from this study mentioned the influence of professors from early introductory courses on their decision to pursue multiple majors.

### Academic Advising, Student Support, and Degree Plans

Based on our research, Ryan, Bastet, Julia, Sarah and others expressed apprehension while creating their own course schedules and increased stress with the advising and class-scheduling processes.

**Recommendation:** Advising center leaders might find it beneficial to invest in and specifically target multiple-major students with specialized advisors. An ideal place to begin this effort would be to focus on the most common major combinations within the institution. Advising centers could also consider having established 4-year plans available specifically for certain multiple majors to provide students with an understanding upfront about the commitments.

### Course Offerings, Interdisciplinary Experiences, and Opportunities

Findings reveal that student course offerings have an impact on their academic experience. We also know that private schools tend to have the most multiple-major students (Pitt & Tepper, 2012), a fact that may be related to the financial motivations as described by students in comments on cost of attendance or need to pay off large student loans. Madison discussed squeezing in as many courses/degrees as possible during her time at SMU. Anna Rose realized the value in completing coursework across academic disciplines. Findings from this study similarly suggest that experiences outside of one major enrich the academic experience (Del Rossi & Hersch, 2008, 2016).

**Recommendation:** Academic curriculum leaders ought to increase course offerings within a degree plan, adding cross-listed and multidisciplinary courses or more diverse learning opportunities that hold advantage for those who are multiple-majoring. Examples of such efforts may include interdisciplinary study-abroad or intercession programs that offer courses from two or more academic disciplines.

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