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Postsecondary education is still considered key for achieving upward mobility and economic success. While access to higher education has over the past three decades, students whose parents did not complete at least a bachelor's degree continue to be at a distinct disadvantage. Given that most first-generation college students are from low-income and minority backgrounds, this population faces challenges distinct to them- 1) insufficient academic preparation, 2) inadequate financial resources, and 3) deficient support from family members and/or peers that attended college. Yet, while first-generation undergraduate students have been extensively studied with regard to their motivations, challenges, and unique needs for persistence, retention, and completion, their graduate counterparts have not. This mixed-methods study seeks to determine the motivations for pursuing graduate degrees by different populations, especially first-generation graduate students, who are the first in their families to pursue graduate degrees, their perceptions of the value of education, necessary social networks of support, and additional support required for a non-traditional population that has often been out of college for over a decade.

Keywords: first-generation, graduate students, persistence, retention, non-traditional, motivation

INTRODUCTION

Serving and engaging a heterogenous population presents challenges for faculty, staff, and administration with regards to meeting cultural expectations, learning styles and backgrounds, and pedagogical strategies (Harper & Quaye, 2015). Demographics and the demand for higher education have seen a shift in the past few decades that will continue to grow. The traditional 18- to 24-year-old college-going population that live on campus has been declining over the past three decades, and now the majority of students are non-traditional and often hold full-time jobs (Weise, 2020). Those students that take an indirect path to graduation are now the most common--including first-generation students and students who are older than 25 and often have families and full-time jobs. Recruiting, supporting, and retaining this adult population requires different strategies and resources than traditionally offered through student support services on campuses that cater primarily to a traditional population that live on campus.

The 2020 pandemic has seen a rise in graduate applicants and enrollment, but at the same time first-generation and low-income student enrollments are declining (Jaschik, 2021). Understanding how to better support this population is now a priority. Studies of first-generation students have confirmed that the population needs more support through remedial tutoring and engagement through the creation of a community designed specifically to support them to make them feel a sense of belonging (Fischer, 2007; Ishitani, 2003; King, 2002; Chen, 2005; Choy, 2001; Inman & Mayes, 1999; Lohfink & Paulsen, 2005; Nunez & Cuccaro-Alamin, 1998; Terenzini et al, 1996; Pascarella, Pierson, Wolniak, &Terenzini, 2003, 2004; Somers et al, 2004; Volle &Federico, 1997; Warburton, Bugarin, & Nunez, 2001). (Chen, 2005; Choy, 2001; Fischer, 2007; Inman & Mayes, 1999; Ishitani, 2003; King, 2002; Lohfink & Paulsen, 2005; Nunez & Cuccaro-Alamin, 1998; Pascarella, Pierson, Wolniak, & Terenzini, 2003, 2004; Somers et al, 2004; Terenzini et al, 1996; Volle & Federico, 1997; Warburton, Bugarin, & Nunez, 2001). What do first-generation graduate students need that is different from their undergraduate counterparts? This study defines first-generation graduate students as those who are the first in their immediate families to complete four-year undergraduate degrees and continue on for graduate degrees. Given the additional responsibilities that limit time on task for their education, the population has a greater need of flexible support services. More importantly, institutions, faculty, and staff treat graduate students differently regarding their expected levels of preparation to take on advanced coursework. The remedial tutoring services to support undergraduate students in mathematics and research and writing are largely absent for graduate students. Additionally, the technologies used at institutions evolve rapidly and this population has often been out of school for over a decade or more, requiring additional support in the use of hardware and software. The use of Microsoft Office, University Learning Management System, and library services are the most requested support. The so-called "digital divide," or the limitation of access to computers or the internet for certain groups, needs to be addressed in order to achieve education equity.

To bridge these gaps, student support services have begun developing programs, such as the First-Generation Collegians (FGC) at Lindenwood University, supported by the Office of Student and Academic Support Services (SASS). First-Generation Collegians are first-generation students, faculty, and staff whose parents did not attend college before they attended. SASS, first-generation faculty, and staff engage first-generation undergraduate college students and provide academic, social, and mentorship support throughout their experiences at Lindenwood. Programs such as the FGB and groups that encourage engagement with a community like the FGC are becoming increasingly common at many institutions to serve the needs of a population that are unfamiliar with academia and cannot turn to relatives to assist in navigating. However, such initiatives also focus on campus activities and face-to-face engagement for an often traditional-age undergraduate population. Support for first-generation graduate students has yet to be considered or developed. Additionally, as students are distanced from campus resources, many are unaware of the services available to them as online and distance learners.

Moreover, first-generation graduate students cannot readily take advantage of the same programs designed for first-generation undergraduates. The population is older, works full-time, and has familial responsibilities that prohibit attendance of such events and activities. With the expansion in distance and online graduate programs, a major barrier to entry has been removed and many first-generation graduate students are taking advantage of programs that allow them to keep their full-time jobs to assist in paying for school and take care of their families. At the same time, the modality that most first-generation graduate students are taking their coursework provides additional challenges that institutions are now grappling with. Among those challenges is how to provide the same type of support and services on an as-needed or on-demand basis. The challenge has led to innovative technological solutions that also lower the cost of tuition. For instance, the University of Illinois is among institutions that have leveraged AI and chatbots to serve a growing population and scale out their graduate programs. The on-demand solution of AI and chatbots has even been leveraged in the form of teaching assistants and tutoring in online courses (Govindarajan & Srivastava, 2020). And while such AI support services can be helpful in bridging the gap with the remedial tutorials in basic skills including tech support, this automated approach runs counter to our study's findings that these discerning, career-focused adult students increasingly demand personalized faculty mentoring.

The adoption of more on-demand, digital services to support online graduate students also attempts to address the motivations for pursuing degrees by various populations. By and large, first-generation graduate students noted that advancement in their current positions or the wish to pursue different career paths were the primary motivations behind continuing on for graduate degrees. As such, like Generation Z, first-generation graduate students are very cost conscious and see the cost of tuition as an investment in their future professional successes. This situation has led institutions to lower the tuition cost for online graduate degrees (Gallagher & Palmer, 2020). The move sets a precedent that similar institutions must manage moving forward in balancing costs for delivery and their tuition revenues. This increased cost and career consciousness comes after the turn of the millennium saw developments in undergraduate and graduate education, such as "massively open online courses" (MOOCs), coding bootcamps, and industry-aligned certification programs (Gallagher & Palmer, 2020). At the same time, this automated approach runs counter to students' increased demands for faculty mentoring and community, as this study will discuss.

The goal of this study is to determine the motivations for pursuing graduate degrees among first-generation graduate students, as well as their perceptions of the value of their education, the necessary social networks of support to complete their education, as well as the additional academic support required for a population that has often been out of college for over a decade. The survey tool used sought to gather demographic information from surveyed graduate students and faculty across all schools at the University in the Spring term of 2021, including the School of Arts, Media, and Communications; School of Humanities; Plaster School of Business and Entrepreneurship; Education; and Health Sciences. The institution offers the following graduate degrees: MA, MS, MME, MBA, MFA, and EdD. Both populations were queried on a Likert scale on the perceived (faculty) and self-reported (graduate students) motivations for pursuing graduate degrees, most significant support provided by the institution, biggest obstacles to degree completion, and readiness for graduate study. The results of the survey from each population were compiled and compared.

The results of the study, which included a representative sample from all schools, confirm the perceived need for mentoring and support services. With regard to demographics, most graduate students identified as White and female between the ages of 25-34 with at least one family member who had completed a bachelor's degree, but not a graduate degree. Most students were pursuing online degrees without significant breaks in matriculation, taking one to two classes each full semester, and using financial aid. Familial support among those surveyed who identified as first-generation was neutral or low. In considering motivations and obstacles, faculty and students agreed on two points. Of the reasons for pursuing a graduate degree, both faculty and students agreed was for "Advancement in current professional position." Career preparedness and readiness ranked at the top of both populations with regards to motives. Of the biggest obstacles faced by graduate students in completing their degree, faculty and students both cited "Time management" as the most significant. At the same time, faculty felt students were slightly less prepared for graduate study by ranking them as "somewhat adequate" versus students who "strongly agreed" that their undergraduate programs prepared them for their current studies.

Support services were highlighted by students as one of the most significant reasons for selecting their graduate schools and the support received while enrolled. The reasons students selected Lindenwood University when ranked was "Staff Support" and "Facilities and Resources." At the same time, the most significant support offered by the University for students were "Tutoring Resources," and "Student Academic Support Services," while faculty ranked their mentorship as the highest, and students their lowest in significance of support services. Faculty overwhelmingly agreed that they are serving as a mentor for graduate students, while most students claim they have no mentor at the University. Faculty also believed that "Faculty mentors" were the most useful support offered to graduate students via the University. The assertion is supported by a later open-ended question relating to whether mentoring is undertaken in their program in question and what kinds. Interestingly, students identified "Faculty mentors" as a significant extra-curricular activity. Students highlight that they do not see extra-curricular activities as part of their programs outside of their faculty mentors (which most agreed they did not have) due to a consistent disconnect with activities on campus due to life requirements or distance from campus. In other words, students confirmed their perceptions that they lacked both mentors at the University and a sense of community through extra-curriculars. In considering course engagement, students were in contention over what the most engaging course activities were, but in the free responses, live discussions or faculty-to-student and student-to-student direct interactions were repeatedly noted as the most helpful.

As this study demonstrates, there is a demand from first-generation and non-traditional graduate students for more robust live support from faculty and staff, while also offering the flexibility provided by on-demand resources. With mentoring and extracurricular activities highlighted as lacking in their collegiate experiences, the future success of such students rests on an institution's ability to support this unique population in these areas. As a result, recommendations from this study demonstrate the need for support services designed specifically for graduate students, including a mentoring program and substantial support services that are readily available and accessible, as well as extra-curricular activities to support a working population that is distanced from campus to engender a sense of a community of support. The expansion of existing first-generation programs, such as FGC at Lindenwood University, housed within Student Academic Support Services provides operational support and scalability. With advising divorced from career support and professional readiness, regular mentoring interactions between students and faculty is needed outside of the classroom. As career advancement is the primary motivation identified by both graduate students and faculty, experiential learning opportunities and support from faculty within a program of study are crucial for first-generation student retention and completion.

LITERATURE REVIEW

There has been extensive research on first-generation undergraduate college students. The population is most commonly defined as those whose parents have not completed at least a bachelor's degree (Choy, 2002; Gardner, 2013; Ishitani, 2002; Lunceford, 2011; McConnell, 2000; Pascarella et al., 2004; Tate et al., 2015). At the same time, it should be noted that many parents of first-generation students have

completed some college but did not finish a degree. These students often work full-time, are older, and are from lower socioeconomic backgrounds. Because of their additional responsibilities, few are able to take advantage of extracurricular activities on campus compared to traditional college students (Prospero & Vohra-Gupta, 2007). An analysis by NCES (2005) on first-generation students confirms that "The family and background characteristics of first-generation college students were typically associated with characteristics that placed them at risk for attrition" (p.iii). For instance, unlike students whose parents hold a degree, first-generation students tend to be older and female, Hispanic or African American, have dependent children, and are from low-income families (Lohfink & Paulson, 2005). These students are often less academically prepared to succeed in college due to a lack of advanced preparatory courses, such as mathematics in high school, leading to lower SAT or ACT test scores and lower college entrance examination scores (NCES, 2005). It should be noted that the opportunities are not afforded to this population, such as advanced placement courses in more affluent areas. An important consideration, however, is that, as in the study undertaken here, demographics differ from institution to institution.

The degree of familiarity students have with the collegiate system, coupled with their status as a first-generation student, also colors their expectations and experiences due to perceptions of cultural and social capital (Bills, 2000; Bourdieu, 1986; Coleman, 1988). As defined by Bills (2000), cultural capital represents "degree of ease and familiarity that one has with the 'dominant' culture of a society" (p. 90). As a form of capital that deals with relationships between individuals, social capital facilitates the exchange of different resources. As such, students with highly educated parents can be seen to have a distinct advantage over their first-generation counterparts in fully realizing the potential of higher education to assist with both personal development and socioeconomic attainment. The resources provided by family relationships of college-educated parents include clear access to human and cultural capital. Conversely, first-generation students, who do not have highly educated parents, are not able to access the same support and are thus less likely to understand information and attitudes necessary for making self-beneficial decisions, such as the significance of college selection, completing a college degree, and the types of academic and social experiences to take advantage of while matriculating. The correlation between the education of parents and relative success of students has received significant attention. For instance, Chen (2005) used data from NELS Postsecondary Education Transcript Study and found that first-generation students attending any type of postsecondary institution were twice as likely to attrit prior to earning a degree compared to second-generation students.

The enrollment trends of first-generation students who are able to matriculate shed light on the social and economic challenges faced by this demographic. Studies have demonstrated that first-generation college students display characteristics that put them at risk of attritting prior to earning college degrees, including delaying enrollment after high school, beginning at community colleges, commuting to campus, needing remedial coursework, and enrolling only part-time, while also working full-time (Chen, 2005; Choy, 2001; Fischer, 2007; Inman & Mayes, 1999; Ishitani, 2003; King, 2002; Lohfink & Paulsen, 2005; Nunez & Cuccaro-Alamin, 1998; Pascarella, Pierson, Wolniak, & Terenzini, 2003, 2004; Somers et al, 2004; Terenzini et al, 1996; Volle & Federico, 1997; Warburton, Bugarin, & Nunez, 2001).Not surprisingly, Strayhorn (2006) relates that first-generation students are more likely to earn lower grades, leading to dropout before the end of the very first semester. As commuters, these students are not as likely to engage in on-campus activities or to develop relationships with faculty members outside of class that could potentially lead to later mentoring opportunities (Pike & Kuh, 2005; Terenzini et al., 1996). Research has shown that students who are actively engaged in educationally purposeful activities in and outside of the classroom are more likely to persist through graduation (Quaye & Harper, 2015). At the same time, first-generation students are also not as likely to develop meaningful relationships with other students, engage with on-campus organizations and student clubs, leading to a feeling of dissatisfaction with the campus experience (Terenzini et al., 1996). Terenzini et al., (1996) also suggests that first-generation students socialize less with other students and faculty outside of class and also receive less support from their families. Importantly, previous research has focused on the academic and social challenges faced by first-generation undergraduate college students; however, there is little research on why those that obtain a degree continue with graduate study. Research suggests that before entering college, first-generation

students are not likely to aspire to an advanced degree (Hurly, 2002). As such, first-generation students who continue on with graduate study are quite rare (Billson & Terry, 1982; Suarez, 1997; Terenzini, et al., 1996). Factors that influence the pursuit and attainment of an advanced degree should be determined to support this population.

First-Generation Graduate Students

The challenges faced by first-generation college students continue even after attaining a bachelor's degree. Studies have demonstrated that first-generation students who complete an undergraduate degree are less likely than their second-generation counterparts to continue with graduate study, especially first-professional and doctoral degree programs (Choy, 2001; Nunez & Cuccaro-Alamin, 1998). This study identifies first-generation graduate students as those who are the first in their immediate families to complete undergraduate degrees and continue for a graduate degree. Unfortunately, little research has been conducted on the factors that influence first-generation graduate student motivation, persistence, retention, and degree completion (Seay et al., 2008). The data that does exist points to increased diversity in graduate programs. Jaschik (2008) noted that graduate enrollment increased 3% between 1997-2007 in the United States. The report confirms that the increase paralleled that of female graduate students that grew by 3% annually, while male student enrollment grew only by 1%. At the same time, enrollment of racial and ethnic minorities grew by 4%, including African Americans, Native Americans, Latinos, and Asian/Pacific Islanders. The increase in enrollment for all minority groups can be attributed to the increase in women seeking graduate degrees. Significantly, one-third (32.1%) of doctoral recipients identified as first-generation (Gardner, 2013; Gardner & Holley, 2011). At the same time, doctoral attrition rates are between 40-50% (Seay et al., 2008).

The demographic shifts are reflected in all doctoral programs in English-speaking countries. Attrition rates also vary by program. McAlpine and Norton (2006) related in their study that attrition for doctoral programs is between 30-50%. The nested framework for understanding retention and attrition in these programs in the fields of education, business, and science includes three overlapping areas: departmental/disciplinary, institutional context, and societal and supra-societal context. The demographics of these students are also shifting, McAlpine and Norton note. Whereas past traditional doctoral students were younger, unmarried, and without dependent children or aging parents, the average doctoral student in the United States, United Kingdom, Canada, and Australia is now older, works full-time, are married, and caretakers for children and/or parents. These factors all lead to higher levels of attrition and the stressors are dynamic and interrelated in the nested framework, and include financial concerns of taking on debt, competing demands of childcare and employment, expanding program requirements, social isolation, and fear of relevant employment upon completion (McAlpine & Norton, 2006). The situation is compounded when the students are also first-generation. Interviewing 20 first-generation doctoral students, Gardner and Holley (2011) noted the same concerns were raised by students, including isolation and financial challenges. However, these students also noted the issue of lacking sources of support in understanding how to navigate graduate study and understanding the implicit or unspoken rules that can be understood through previous parental experience.

Why Do Some Students Persist?

With all of the social and economic challenges faced by first-generation students, the factors that lead to successful degree completion are of great interest. Prospero and Vohra-Gupta (2007), for instance, have researched first-generation undergraduate college students and their motivation, integration, and academic achievement factors. The quantitative study used the Integrated Model of Student Retention and the Self-Determination Theory of Motivation in order to identify the factors for academic success among the population compared to second-generation students. The study confirmed that the motivation for first- and second-generation students is, in fact, different. The populations were affected by the motivational dimensions differently- intrinsic, extrinsic, amotivation, and integrative dimensions of academic and social motivation (2007). The results were supported by Cabrera, Nora, and Castaneda, (1993) in their Integrated Model of Student Retention (IMSR) where both academic and social integration increased retention.

Academic integration includes how a student assimilates into academic life at an institution, such as faculty-student contact outside the classroom, productive student study habits, and academic supportive services. On the other hand, social integration includes developing close friendships with other students, as well as involvement in extracurricular activities on campus. Additionally, Self-Determination Theory of Motivation (SDT) is made up of intrinsic motivation, extrinsic motivation, and amotivation (Deci & Ryan, 2000). Intrinsic motivation can be understood as engaging in an activity for the satisfaction of participation, while extrinsic motivation compels an individual with outside factors. Finally, amotivation is experienced when a barrier to achieving a goal is perceived. Based on this study, transforming the college environment in order to promote academic and social integration of first-generation students has become the norm. The recommendations are echoed in the study by King and Chepyator-Thomson (1996) on enrollment and persistence factors of African-American graduate students. The factors fell into three categories: institutional, environmental, and motivational. Most students were extrinsically motivated to enroll because they wanted to advance their careers, while several were encouraged to apply by a family member or mentor. Finally, the most impactful institutional resources to assist with persistence were financial aid and academic support services (King & Chepyator-Thomson, 1996). Through an understanding of the intrinsic and extrinsic motivations of first-generation students, and systematic integration of academic and social factors, this student population may be successfully supported, leading to increased retention and graduation rates (Prospero & Vohra-Gupta, 2007).

Mentoring as a Retention Strategy

Academic guidance and advising is crucial, not only for retention of graduate students, but for their decision to attend graduate school to begin with. Lunceford (2011), himself a first-generation graduate, notes that the road to graduate study actually starts with having a mentor and advisor that identifies that as a possibility. Tinto (1990) reiterates the sentiment by arguing that the relationships formed by students with faculty members positively affect retention. Longwell-Grice and Longwell-Grice (2008) confirm that relationships between students and faculty increase persistence for first-generation students, but at the same time, first-generation male students exhibited a reluctance in seeking out said relationships. Along similar lines, Pascarella et al. (2004) also confirmed that despite the importance of supportive relationships with faculty and staff on first-generation student success, they did not seek out or maintain such engagement. Many studies have lamented the lack of faculty mentors for first-generation graduate students, especially African Americans (Brown et al., 2000; Davidson & Foster-Johnson, 2001; Ellis, 1997). According to Walker, Hanley, and Wright (2001), African American students need mentors with whom they are able to identify with to succeed academically. According to Cheatham and Phelps (1995), "Graduate students develop professional identities from a composite of professional models and individuals, both positive and negative." Brown et al. (1999) related that the very raison d'être for mentoring programs is to provide a structure for faculty to interact with students in order to increase degree completion and professional success. Further research has yielded that students attribute their academic success to three factors that include personal ambition, supportive family, and, significantly, supportive faculty (Brown et al., 1999; Van Stone et al., 1994). Having a strong mentoring program and developing mentoring relationships with graduate students enhances the likelihood of student success, especially among African American students. However, at the same time, generalizing about first-generation graduate students should be avoided. Seay et al. (2008) related that the results of their study concluded that while most students in this population are low-income, minority females, the demographics were not reflected at their own institution. This supports the results of Guentzel and Nesheim's (2006) study whereby differences between institutions should be considered to tailor support systems for graduate students using institutional-specific data to meet the needs of diverse populations.

METHODOLOGY

The mixed-methods study included data from surveys collected from students and faculty. The sample was collected from Lindenwood University, a private, four-year, liberal arts institution in the suburban ring

of St. Louis, Missouri. Participants included 60 graduate faculty and 247 graduate students from the Schools of Education; Arts, Media, and Communications; Health Sciences; Humanities; and The Plaster School of Business and Entrepreneurship. The purpose of the project was to assess the academic attitudes and perceptions of first-generation graduate students regarding academics and support. Results gathered were compared with the corresponding themes answered by graduate faculty. This project utilized a mixed-methods study design which included qualitative (open ended comments) and thematic (quantitative) results from an online survey. The survey was administered in Spring of 2021 and collected data on student demographics, modality of attendance, motivation for selecting a particular institution and program, support provided/needed, engagement, and perception of preparedness for graduate coursework. The engagement and most significant indicators for future success in graduate school were drawn from previous literature (Chen, 2005; Choy, 2001; Fischer, 2007; Inman & Mayes, 1999; Ishitani, 2003; King, 2002; Longwell-Grice & Longwell-Grice, 2008; Lohfink & Paulsen, 2005; London, 1989, 1992; Nunez & Cuccaro-Alamin, 1998; Pascarella, Pierson, Wolniak, & Terenzini, 2003, 2004; Prospero & Vohra-Gupta, 2007; Rosas & Hamrick, 2002; Somers et al, 2004; Terenzini et al, 1996; Volle & Federico, 1997; Warburton, Bugarin, & Nunez, 2001).

Participants were asked to indicate via a 1-10 Likert scale their perceptions of the important support services and ranked the available options from most to least important. Students and faculty were asked an open-ended question regarding what activities they found to be most engaging. Students were contacted either through the University course management system or were emailed with links to online surveys. The survey was available for approximately two-weeks at the end of the term and all data was collected using Qualtrics to ensure privacy and anonymity of responses. These results were sorted based on demographics (self-identified first-generation graduate students and non-first-generation) and data were exported for the survey system. Descriptive statistics were calculated and used for comparisons between groups.

Results

The study examined the perspectives of graduate students at a mid-sized private university for patterns and experiences. Special attention was paid to first-generation graduate students, defined as those students who are the first in their families to pursue an advanced degree. Specifically, this study sought to answer the following questions:

Research Question 1: *What are the motivations to pursue graduate degrees? Are the motivations and perceptions of value for First-Generation Graduate Students different?*

Research Question 2: *What academic and social support networks do graduate students need to complete their degrees? Do First-Generation Graduate Students need different supports?*

The survey instrument, discussed previously, included numeric and open-ended questions. The resulting data were analyzed through descriptive and thematic methods. The total sample size for this study was 247, with 137 first-generation graduate student responses.

Demographic Considerations

While we chose not to examine demographic factors outside of first-generation status, a review of participant demographics may be helpful to future research and practice. Participants represented various age groups, with the majority (40%) 25-34 years old. A significant percentage (30%) were aged 45 and older. Participants indicated gender identification, with the majority (74.5%), selecting female. This response could represent a skew in the data and must be considered when reviewing the results in this paper.

The majority of respondents (74%) identified as White or Caucasian. Once again, we believe reporting this information is essential when reviewing the results of the study. While participants representing marginalized communities may have similar experiences to those reported below, we must be wary of assumptions. Finally, the majority of participants (78%) were enrolled in online courses during data

collection. This study coincided with COVID-19 precautions at the research site. Therefore, it is possible these participants were enrolled in online programs, or online courses due to lack of in person offerings.

Research Question 1

The first research question asked how graduate students perceive the value of higher education and how they are motivated in pursuing their degrees and if the perspectives of First-Generation Graduate students differed from the overall responses. Respondents were asked directly their motivations for pursuing graduate education. Participants received response options, including: advancement in current position, to pursue a different career path, to get a raise, personal satisfaction or interest, love of learning, secure protection during a career change, fulfill requirements in my career field, and sense of personal accomplishment. The majority of participants indicated motivation stemmed from advancement in current position (27.6%), pursue a different career path (24.3%), and personal satisfaction or interest (17%). A comparison of the overall results to those of first-generation participants suggested similar perspectives. However, first-generation graduate students indicated personal satisfaction or interest at a greater percentage than non-first-generation with 60% of those indicating personal satisfaction as a key motivator representing first-generation graduate students.

We asked participants to rank their reasoning for attending the study site for their graduate degrees. Participants had the following options: *academic reputation, facilities and resources, faculty expertise and experiences, cost, staff and support, flexibility of modality*, and *other*. The participants had the option to rank any or all the options. Responses suggested support personnel (M= 4.80) and facilities (M=4.66) were most important to the students when selecting the institution. However, these results suggest marginal importance due to the seven point scale. The importance of support staff and facilities may suggest an opportunity for the study site to provide specific interventions for the challenges discussed in the review of research question two.

A key component of motivation is engagement in learning activities. Participants were asked which types of experiences they found engaging. Options included the following: *practicum, seminar, group projects, internships*, and an option for *other*. The majority of participants (47.2%) indicated they preferred practicum and seminar to be most beneficial to their education. This result seems in line with other data from the study suggesting the majority of participants sought graduate degrees for either promotions within their current careers, or career changes. While practicum and seminar may differ when considering academic area, these courses typically represent the most applicable aspects of a student's program. Open-ended comments seemed to also support the link between engagement and practical experiences. Responses included "Real world experiences", "Case Study Analysis", and "Viewing online museum exhibitions".

Finally, we asked participants if they felt their undergraduate experiences prepared them for advanced study. This question is important, as previous success may suggest motivation to continue study or perceived value of higher education. Respondents indicated their undergraduate experience prepared them for advanced study (82.2%). While participants were not asked if they attained their undergraduate degrees at the research site, those who attended the site previously may have returned for graduate study due to, in part, feeling prepared for the degrees.

Research Question 2

The second research question investigated academic and social supports for graduate students, seeking comparisons between first-generation graduate students and the remaining population. The survey instrument included several items which probed this area. Participants were asked which supports they find most useful on campus. The options included the following: *academic advisors, career strategists, faculty mentors, financial aid officers, online tutoring, reference librarians, Student Academic Support Service, tutoring resources, writing center specialists*, and *other supports*. Participants could rank any or all of the options. The three highest scores included tutoring resources (M=7.26), student academic support services (M=6.24), and writing center resources (M=6.18). These three selections intertwine with one another, with coordination from the same group of professionals at the study site. Surprisingly the lowest scoring option

was academic advisor (M=2.04). This result may indicate students saw advisors more as process orientated professionals as opposed to support personnel.

Respondents also specified the level of support they received from their families. The majority of responses suggested that families were supportive, with roughly 87% stating they felt very supported or somewhat supported by their families. However, the majority of those participants indicating lack of support from families (74%) represented first-generation graduate students. These results seem to suggest a connection to previous literature on first-generation undergraduate students. The researchers argue the experience of first-generation graduate students might mirror that of undergraduate students in this demographic.

Participants indicated their most significant challenges during their graduate experience. Their options included the following: *time management, family responsibilities, meeting financial challenges,* and *meeting assignment deadlines*. While the majority of respondents indicated time management (43.6%), one in five students suggested family responsibilities were the most challenging aspect of their graduate experience. Moreover, 65% of those selecting family responsibilities as challenging represented first-generation graduate students (32 of 49). This result suggests first-generation graduate students may experience greater family challenges than their peers. Perhaps these students entered their programs later in life or see a greater responsibility to their families.

Students also stated if they had taken a break during their graduate studies. While the term break may have a flexible definition, the inference was a minimum of one semester away from the academic program. While 23% of all respondents indicated they had taken a break from their programs, 63% of participants who took a break represented first-generation graduate students. This result, when combined with that of family challenges, may present a support opportunity for these students. Faculty and staff could be trained in these unique factors to serve as better resources for the first-generation population.

The researchers also requested information regarding social activities (events, clubs, etc.) The majority of respondents, 54%, indicated they did not participate in social activities or seek out mentorship from faculty due to virtual educational experience, time constraints, and family responsibilities. There was no evidence in the open-ended responses to suggest these students would attend activities if these challenges were resolved. The next highest response to social activities related to faculty mentorship, with 31% of students indicating they felt connected to a faculty mentor. These results were supported by open ended statements regarding the desire for more faculty-student mentorship. One participant felt supported by faculty, but could not identify one specific mentor, "Potentially I am still new to the MBA program so I have yet to identify anyone I would classify as a mentor, but all of my professors have been incredibly helpful, supportive, and responsive to my questions and have been open to any conversations I may need."

Finally, we provided the opportunity for participants to share any additional supports needed for their graduate study. While many participants suggested they felt supported at the institution, we developed two themes on requested support based on the comments. The first theme is faculty visibility and organization in online courses. Students may have enrolled in online courses due to pandemic requirements and some faculty may have limited experience with instructing in this manner. One student suggested faculty could go further with instructing online courses, providing more visibility to the experience, "Most of my classes took place in an online format due to COVID-19. While I understand there was no way to anticipate this, I honestly felt like most of the instructors used this as an excuse to not teach and interact with the students. Alternatively, they could hold a short, live online class so we would have a chance to ask questions."

Another student seemed to agree with this statement regarding instructor responsibility, "Make sure your Graduate professors are better prepared and organized for the classes they are teaching."

The second theme for additional student support is faculty outreach to students. Several students mentioned lack of faculty outreach in courses or the inability to connect with peers in coursework. One student suggested connected experiences with the outreach, which support earlier discussion in this section. The student mentioned, "Frequent check-ins and hands-on experiences/activities for full time graduate students." Another student seemed to agree, recommending scheduled check-ins in classes, "For online classes make the professors do at least once a week sessions to understand the material better or post lecture

videos." Participants also preferred personal contact rather than form messages from faculty and advisors, suggesting some information did not apply to them.

RECOMMENDATIONS

Strategies to support first-generation undergraduate students have been thoroughly developed and implemented at many institutions, especially community colleges. Existing support structures should be reviewed, including advising, mentoring, and first-generation programs in order to determine their viability for graduate students and what adjustments may need to be made (Engle, 2007). In addition, training programs for faculty and staff need to be implemented with the support of administration to meet the unique needs of this population. As this study demonstrates, there is a demand from first-generation and non-traditional graduate students for more robust live support from faculty and staff, while also offering the flexibility provided by on-demand resources to meet their challenging schedules. With mentoring and extracurricular activities highlighted as lacking in their collegiate experience, the future success of such students rests on an institution's ability to support this unique population in these areas.

Advising and mentoring are two areas that research has demonstrated affect retention and persistence with the population. The three studies undertaken by Longwell-Grice, et al. (2016) set forth that academic advisors and faculty/staff mentors who acknowledge that students are negotiating their changing family statuses while attending college can better guide them toward appropriate degrees and improve retention and persistence. Moreover, college administrators should ensure programs are in place, along with professional development, to assist as advisors address the complex issues facing first-generation students. Engaging advising has been seen to positively influence student retention (Habley & McClanahan, 2004; Klepfer & Hull, 2012). Increasing the number of advisor–advisee meetings may also positively affect student persistence (Ishitani, 2006). Vander Schee (2007) argues that students may be convinced to persist by advisors, especially those most at risk to attrit, such as first-generation students. Since advising appointments can be used as an institutional mechanism to connect students to the institution (Swecker et al., 2013), advisors should be trained to maximize the time to assist students in overcoming their specific obstacles to degree completion.

At the same time, the difference between advising and mentoring need be considered. Advising at most institutions, including Lindenwood University, primarily handles the transactional aspects of education, including program planning, enrolling in courses, and adjusting schedules. On the other hand, mentorship has traditionally been between a faculty member and a student in a field of study. Instead of academic advising, the relationship centers on professional development and career preparedness (Guzzardo, et al. 2021). With advising divorced from career support and professional readiness, regular mentoring interactions between students and faculty is needed outside of the classroom. As career advancement is the primary motivation identified by both graduate students and faculty, experiential learning opportunities and support from faculty within a program of study are crucial for first-generation student retention and completion.

CONCLUSION

As a result, recommendations from this study demonstrate the need for support services designed specifically for graduate students, including a mentoring program and substantial support services that are readily available and accessible, as well as extra-curricular activities to support a working population that is distanced from campus to engender a sense of a community of support. The expansion of existing first-generation programs, such as FGC at Lindenwood University, housed within Student Academic Support Services (SASS) provides operational support and scalability. "Access to higher education" must be understood to mean not only admission to some postsecondary institution, but also "access" to the full range of college experiences and to the personal, social, and economic benefits to which those experiences and degree completion lead (Pascarella et al, 2004). Students repeatedly noted a desire for mentorship and direct engagement with faculty both in and outside of the classroom. The Covid pandemic moved education

online, opening the door for more opportunities for serving students according to their unique needs, such as possibilities for increased online outreach and face-to-face mentorship as well as online extracurricular communities and events—all of which can fit into working adults' busy lives. Consonant with our survey's findings, elsewhere Bass (2016) notes the need to "strengthen mentoring and move it from the margin to the center." As we move further towards a model based on asynchronous delivery systems and online education, investment must be made in human connections. Bass (2018) notes that as we divorce the student from the physical classroom and direct, in-person feedback loops with faculty, we must move beyond the first wave of "technosolutionism," and invest in strengthening connections and community to support belonging, making meaningful connections with students through "investment in people along with digital systems" (p.37-38).

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