

**Being Proactive: Reconsidering the Word "Retention" for the Success of
First-Generation College Students**

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Abstract

With first-generation students increasingly being accepted into colleges and universities, higher education institutions face the challenge of high drop-out rates and low retention rates. This study uses qualitative research methods and examines the stories and the factors that lead to the success of four first-generation students in a Midwest university. As results, four untraditional findings are revealed. The paper argues that higher education institutions should reconsider using the term *retention* by shifting from "what fails them" to "what supports them." The article suggests that higher education institutions should produce policies and programs that foster the factors that support first generation college students' success at the higher education.

Keyword

first-generation, retention, success, drop-out, higher education

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Higher education's increasing efforts at recruiting students from diverse backgrounds result in more first-generation college students (FGCS) attending postsecondary schooling. FGCS come from varied backgrounds with a range of hopes, goals, and motivations, and are typically from low-income families, having racial or ethnic minority backgrounds, or a combination of both (Katrevicch & Aruguete, 2017; Unverferth et al., 2012). Unfortunately, compared to their non-FGCS peers, FGCS are more likely to obtain lower grades, display lower critical-thinking skills in their academics (Katrevicch & Aruguete, 2017), have less frequent faculty contact, spend less time and less energy for academic tasks (Katrevicch & Aruguete, 2017), as well as have a higher drop-out rate (Ishitani, 2003; Pike & Kuh, 2005; Soria & Stebleton, 2012). Unsurprisingly, the U.S. Bureau of Labor Statistics (2014) reveals that lower education retention and performance for FGCS often leads to lower employment opportunities and lower wages.

FGCS comprise a unique group of students who often face many challenges (Longwell-Grice et al., 2016; Soria & Stebleton, 2012). They do not possess the same social and human capital as their non-FGCS counterparts (Soria & Stebleton, 2012). As a group, they face the challenges of transitioning into and navigating the higher education landscape, mastering the culture and procedures, obtaining scholarships, internships, and other opportunities that can benefit college students (Conley & Hamlin, 2009; Soria & Stebleton, 2012). Unfortunately, these students are less likely to graduate on time (Pascarella et al., 2004) and need more support from higher education institutions.

After examining the issues, support, and programs that are developed for the success of the FGCS in their college career, the term *retention* is often used to describe a deficit that exists, and the majority of the university efforts are on generating remedial strategies or programs to passively attempt to fix the weaknesses of FGCS with instruction on skills and knowledge believed to help. These reactionary efforts to retain FGCS results in universities that often implement activities designed and set up by the higher education institution based on erroneous beliefs about how to help these students realize academic success. Universities must evaluate the effectiveness of their intervention activities on FGCS and, particularly, whether these supports align with the expectations and perspectives of these students, and how to make these supports more effective.

This study, anchored on the life experiences of four successful FGCS in a Midwestern University (MWU), aims to examine factors that contributed to their success and variables that made their progress more difficult. Ultimately, institutions need a change of culture regarding FGCS to address improving retention by shifting away from remedial strategies to design active programs based on the strengths, needs, and desires of their FGCS.

This article answers the following three questions:

1. What experiences do FGCS have at their higher education institution, and what are their perceptions about their experiences?
2. What do FGCS think about the support offered by the higher education institution to realize their success?
3. What support/s do they believe will lead to their college success?

Literature Review

Factors Concerning First-Generation College Students (FGCS)

Many researchers have documented barriers towards success in higher education by FGCS. Many colleges set up their support system to help the FGCS overcome these challenges to succeed in their enrolled program. For instance, some institutions offer particularly designed low-level courses to provide perceived necessary instruction for the FGCS to catch up with their non-FGCS peers. At the MWU, there is a 115 level courses designed to help the FGCS learn about what it means to be a college student and how to manage time while in college. However, these courses are set up as remedial strategies hoping to boost the success rate of the FGCS. As the literature ahead will address, these efforts are one of the major unfavorable factors that literature has documented that affect the FGCS' college success.

Environment Influence

Pike and Kuh (2005) used Pascarella's (1985) model of environmental influences on college outcomes models to examine the effects of group differences on students' college experiences and learning outcomes. They analyzed a stratified random sample of 3,000 undergraduates from across the nation who completed the College Student Experiences Questionnaire (CSEQ). They found that first-generation college students do not compare favorably with their peers from families where at least one parent graduated from college. This finding is aligned with Blackwell and Pinder (2013) study. Also, the first-generation students were less likely to integrate their diverse college experiences with successful academic performance. Instead, they were more likely to perceive the college environment as less supportive. Longwell-Grice, et al. (2016) found that first-generation students expressed anxiety about academic competency or competitiveness, and some of them reported that they are struggling with the overall higher education environment where they participate.

Academic Engagement and Class Participation

Scholars studied FGCS' academic engagement and retention compared with their non-FGCS counterparts and found that FGCS were less engaged (Atherton, 2014; Pike & Kuh, 2005; Soria & Stebleton, 2012). Soria and Stebleton argued that the FGCS had lower interactions with their peers, making fewer contributions to class discussions, asking fewer insightful questions in class, and proposing ideas less frequently during class sessions. These findings were noted after controlling other factors, such as gender, race, cumulative grade point average, American College Test (ACT) scores, campus, climate, and sense of belonging.

Self-Efficacy, Persistency, and Relationship at College

Vuong, et al. (2010) explored the relationship between academic self-efficacy beliefs and academic adjustment of FGCS and non-FGCS. They gathered data from a Cooperative Institutional Research Program (CIRP) at the University of California, which administers 33 efficacy belief items of first-generation students. There were 2,358 participants from 25 private institutions (varying in selectivity and size from 1,200 to 10,000 students) in 14 states. Vuong et al. discovered that the FGCS had weaker relationships with peers and professors. The study suggested that the FGCS experienced incongruence between perceptions and college performance.

Similarly, Elliott (2014) analyzed the effects of self-efficacy on the academic success of first-generation college sophomore students. College sophomores from five California State Universities completed an online college Self-Efficacy Inventory method to measure the validity of the results. Both studies revealed that self-efficacy beliefs affected the GPA of the first-generation sophomore students while non-FGC sophomores outperformed their first-generation peers. Elliott (2014) argued that self-efficacy beliefs affected the persistence rates of first-generation sophomore students. This finding agreed with Soria and Stebleton's (2012) discovery

that first-generation students had a lower returning rate to the second year of study than non-FGCS peers. This finding aligned with Pike and Kuh (2005) utilizing a conceptual model-input-environment-output (I-E-O) model to examine the first-generation college students' learning performance, persistency, and graduation.

Lack of Confidence and Poorer Educational Foundation

Murphy and Hicks (2006) studied the differences in academic expectations of FGCS and non-FGC undergraduates who attend a doctoral-granting, public, four-year, historically Black university. The study included 203 first-year students, including 133 FGCS and 70 non-FGCS. They discovered that although there was no significant association between the highest academic degree they aimed to attain and parent education status, the FGCS were less confident about their academic abilities in mathematics than that of their non-FGCS and may not have received the K-12 education experiences required for the rigorous demands of college-level math. Therefore, their poor educational foundation resulted in either needing extra time to complete a degree or dropping out of school permanently.

Fortunately, in addition to the unfavorable obstacles, literature also documented the favorable factors that supported, even promoted the FGCS' college success.

Importance of Personal Traits and Determinations, and

High School to College Transitions

Scholars have conducted few studies on why some FGCS are more successful than others. Longwell-Grice et al. (2016) used qualitative, semi-structured interviews to study the educational resiliency of first-generation, first-semester, Latino students who persisted after the fall drop deadline. They studied nine participants, including five men and four women. Using an ongoing process of “continual reflection about the data” (Creswell, 2003, p. 190) and a symbolic

interactionist approach (Blumer, 1969) while relying on the theory of cultural capital (Bourdieu, 1977), Longwell-Grice et al. found that the nine graduate students shared several factors that contributed to their educational resiliency. As shared traits, they all expressed an aptitude for academic work, love of learning, desire to serve others, ability to balance the passion for a field of their study with career-minded practicality, and interest in upward mobility.

More importantly, Longwell-Grice et al.'s (2016) study highlighted three emerging themes. These themes included learning the rules that guide interactions in and out of the classroom, demonstrating resilience as they handled the complexities associated with their college experiences, and managing family relationships while addressing the challenges that arose from their evolving identity as a college student. The study also found that participants expressed firm beliefs that the transition from high school to college presented barriers for them, explaining difficulties in adjusting to the new setting, completing applications for financial aid, and navigating the magnitude and complexity of the challenges presented in college life.

Extracurricular Activities

Pascarella, et al. (2004) compared FGCS and non-FGCS regarding demographic characteristics, secondary school preparation, the college choice process, and college expectations. They also attempted to describe and understand the transition from high school to postsecondary education for FGCS. Pascarella, et al. (2004) examined 18 four-year college students for three years based on data from the National Study of Student Learning (NSSL) to identify the patterns of the students' persistence in college, degree attainment, and early career labor market outcomes between the two groups. Pascarella et al. (2004) discovered that first-generation students derived greater outcome benefits from extracurricular involvement and peer interaction than other students.

Academic Rigor, Support Network, and Responsibility

Studies argue that the pressure of academic rigor, opportunities for social networking, and assigning responsibilities are critical factors that ensure FGCS' success. Saunders & Serna (2004) focused on 10 Latinx students who enrolled in 4-year institutions after high school graduation to explore the long-term effects of a college intervention program on the FGCS. The study gathered data from the third follow-up to the National Educational Longitudinal Study to focus on students' proclivity to mobilize support around academic, financial, personal, and family issues. The study found that the first-generation Latinx college students succeeded in creating new networks. Particularly, they negotiate and sustain their social networks to influence their own college experience, which resulted in an increased GPA for all of them.

Vega (2016) used a qualitative study to understand the college-going experiences of 10 high achieving first-generation Latinx college juniors and seniors' students at a Hispanic-Serving Institution in the Southwest. Vega used interpretative phenomenological analysis to examine interview transcripts. The study identified significant statements that explained how the participants made sense of their college enrollment and persistence decisions. In the study, seven of the ten participants reported completing advanced courses (e.g., advanced placement, dual credit, specialized courses) as high school students (academic rigor), three support networks, namely personal, family, and friends; and participants' positive experiences with school personnel, and family members' essential role in the participants' motivation to enroll in college (support network). Furthermore, the participants discussed the importance of college success and persistence as a personal motivator (internal motivation). Finally, the first-generation college students felt a responsibility toward their family to complete college and the need to be a role model for their family (responsibility).

The literature explored in this paper provides a solid foundation for understanding how to support the FGCS even when an approach is often a deficit-based approach operationally using remedial strategies as a solution. The available literature does not document any FGCS' voices to explore their needs and discover any supports that might be more effective to help them succeed. This study, building on the literature, shares the stories of four successful FGCS who enrolled in a public Midwestern University (MWU). Their stories highlight the need for higher education institutions to listen to the FGCS' voices and design a support program to meet their needs. Universities should reconsider the traditional remedial approaches to implement proactive strategies to best support FGCS and maximize their learning potential.

Methodology

Method

The study used qualitative research methods, including an online survey and semi-structured interviews. The authors divided the online survey into two sections, a) participants' contact information, and b) content questions. The purpose of the contact information section was to collect basic information (e.g., name, years at the MWU, current major) to contextualize the follow-up face-to-face interviews. The authors employed an online survey because it provided an accessibility advantage to participants. The semi-structured interview method allows participants to share their experiences in a way they feel comfortable with the prompts (interview questions) from us. The focused interview provides opportunities to collect rich descriptions of selected FGCS' life and study experience, which helped answer research questions more thoroughly.

Participants

The authors recruited participants aged 18 and older from the MWU TRIO program, which is part of the Federal TRIO Programs and located at the MWU. The TRIO program identifies individuals with varying needs to provide more comprehensive access to college study and support systems to complete college. The Program attracts participants from any ethnic background, age group, health status, and gender orientation. Most of the students in the TRIO program at the MWU are FGCS (MWU website, 2021).

The TRIO staff provided a list of potential participants for the study, drawing from the 70 students in the program when the data were collected. The research team set up all initial survey questions in Qualtrics, a subscription-based online survey management tool provided to all MWU faculty. Based on the university policy, the Office of Institutional Analysis sent out an email containing the Qualtrics survey link to the TRIO list to collect data. The email explained its recipients' options to participate in the study or ignore the email.

When students clicked the link, a webpage provided an online consent form describing the study and explaining their participation role. The authors constructed the consent form based on the university Internal Review Board (IRB) requirements, and the IRB approved it. Students had three weeks to complete the survey if they elected to participate.

At the end of the three weeks, seventeen individuals completed the survey, and eight agreed to have their data analyzed. Among the eight, six agreed to be interviewed, and two students elected to discontinue participation. Eventually, we interviewed four out of the six students, including both male and female participants.

Data Set

The study used two sets of data, including the online survey and follow-up interviews. The online survey contained questions to explore participants' educational experiences, such as

whether they had taken AP classes, whether they had ever changed their major, whether they were involved in any student organizations, clubs, and groups, whether they were going to continue with the student organization, clubs, or groups, whether they were to continue their study at the MWU, how successful they viewed themselves in their college study, how they felt about the university support, their peer support, their faculty support, and whether they would continue their study. There were 29 questions in total. This section took about 20-30 minutes to complete.

Authors also conducted semi-structured interviews after initial analysis with the participants who answered all the online survey questions, gave the permission to the follow-up interview, and provided contact information. There were eight semi-structured interview questions, including why the participants wanted to continue their education, why they believed they were or were not successful in their studies, what struggles they experienced, and what support worked for them. The face-to-face interview took approximately 20-30 minutes to complete.

Analysis

The authors approached the investigation through the lens of the Bourdieu's (1986) social capital theory that was enhanced by Bourdieu and Wacquant (1992). That is, individuals may not have the same access to social capital, but individuals and groups acquire social capital through institutional relationships of mutual recognition. Richardson's (1994) validity metaphor of crystallization was employed to identify the interplay between the data sources to map the themes and ideas in a complex way and, therefore, to uncover the themes and patterns. First, the research team transcribed the interviews. Next, the team inputted data into MAXQDA, a qualitative data analysis software, which helps with identifying the repeating themes. One set of interview data became the initial anchor to implement the emergent thematic coding approach,

through which themes were merged when they had the same or similar connotations. To initiate this process, researchers independently conducted an individual analysis of the interview data based on participants' own words. They collaboratively discussed the results of the initial individual coding efforts to come to agreement on identified codes that were reappearing across individual efforts. This process led to the identification of 17 codes. Then with the agreed-upon coding categories, two members coded the rest of the interviews individually. After completing all coding, the Intercooder Agreement available within MAXQDA provide nearly an 87% agreement rate on individual codes we each applied (e.g., see Tables 1 & 2).

Table 1

Academic and Life Experience Categories

Intercooder agreement: code-specific results

	Code	Agreements	Disagreements	Total	Percent
◆	Academic Support	4	0	4	100.00
⊖	networking	0	4	4	0.00
⊖	happiness	3	1	4	75.00
◆	family	4	0	4	100.00
⊖	time management	3	1	4	75.00
◆	finances	4	0	4	100.00
◆	Grad school: Nee...	4	0	4	100.00
◆	Career: Needed S...	4	0	4	100.00
◆	Academic Perfor...	4	0	4	100.00
◆	Contacting Instruc...	4	0	4	100.00
◆	Overcoming/Coping	4	0	4	100.00
◆	Struggles	4	0	4	100.00
⊖	Transition	2	2	4	50.00
◆	Student Organizat...	4	0	4	100.00
◆	Changing of Major	4	0	4	100.00
◆	Reason for Colleg...	4	0	4	100.00
⊖	belonging	3	1	4	75.00
Σ	<Total>	59	9	68	86.76

Note: MAXQDA generated coding summary chart.

Table 2:

Intercooder Agreement Results

Intercoder agreement: results

Coder 1: 260 Coded Segments Coder 2: 205 Coded Segments

	Document	Agreements	Disagreements	Percent
⊖	E interview	15	2	88.24
⊖	D interview	14	3	82.35
⊖	C interview	14	3	82.35
⊖	B interview	16	1	94.12
Σ	<Total>	59	9	86.76

The high percentage of intercoder agreement provides evidence of internal validity for the data analysis results. During a third collaborative round of analysis, researchers categorized patterns to provide shape to the findings. This round relied on focused coding (Charmaz, 2006; Saldaña, 2009), which yielded 17 categories, a) Academic Support, b) Networking, c) Happiness, and more that represent FGCS' academic and life experiences, and the categories appear in Table 1. After this step, the interview data results were compared and combined with the online survey data considering the literature to bring a final conceptualization to the data.

Results

Participants in this study were not unlike other FGCS as described in other studies in the literature. These students revealed they were resilient, persistent, problem-solvers, and confident regardless of the challenges that they confronted. The common theme that we found among these participants was financial constraints (Atherton, 2014; Sanacore & Palumbo, 2016). However, differing from the literature, these participants appeared to understand their life situations and were willing to build upon what they had.

D: "So my biggest support, which has been expressed to my fiancé, which is why I'm gonna take a gap year to kind of get things all ready for me, is that he knows that financially he's gonna be the biggest support because if I'm not able to hold a job, I mean I can get the assistantship, but I think it said that it pays you \$2000 a semester which is not very much a month, it's maybe some gas and food, so, h- yeah that's the biggest support is definitely financial 'cause it takes a lot for you to- to not be able to."

C: "I know that there's only so much that um because I live with my boyfriend, there is only so much he can do, financially, so I understand that."

Both participants explained their financial situation and admitted that they had to rely on their fiancé or boyfriend for financial support. Interestingly, we found that surrounding the common theme of financial needs, sub-categories emerged. In the following, we summarized our findings into four interconnected sub-themes. These findings are familiar but surprising at the same time.

Financial Needs as Motivations to Go to College

Financial need was a prioritized challenge for all participants. However, in this study, two of the four participants viewed needing financial support as an opportunity to grow. Instead of viewing their financial need as a deficit, it motivated our participants to go to the MWU and realize success. Supporting excerpts from the interviews are provided below.

E: "My dad filed for bankruptcy twice in like, his lifetime, so you know, there was just that kind of too. Like if I go to college, well maybe I can get, you know, more steady income, and like, do better financially for myself and my family in the future."

B: "Yeah, like I've- I think it's really hard to go unemployed . . . If I was [obtaining] a master's in biostatistics, and I had an undergrad in poli sci and statistics, I don't see how

I'd be, I could see how I'd be under-employed, but I'd never see, like, even in a rough economy, I'm obviously not talking like to the degree of like the Great Depression, but like, in a rough economy, I don't see how I wouldn't be employed at all. So, I feel because undergraduates have lower unemployment rates, and then graduate students have lower unemployment rates than even them, that, you know, you're setting yourself up for success. And it's like if it really came- push came to shove, I would take a job that maybe wasn't in my career field or something I didn't love, but I would always have a secure work. That I have enough training and a high enough degree attainment that, you know, anything I wanted, I could get.”

Both participants E and B articulated directly about their need for financial support.

However, from their answers, they both explained that they were studying at the MWU because they believed that going to college and getting a degree would provide them with a more secure and steady income. Participant B made a further jump by explaining that getting a master's degree would provide an even better and more secure job.

Strong Desire to Be Independent through Capacity Building

Because financial needs inspired the participants to go to college, they recognized that they lacked knowledge of how the higher education system worked, which the literature identifies as a lack of social capital (Soria & Stebleton, 2012) and parental guidance on college life (Palbusa & Garnvain, 2017). In the face of such disadvantages, these interviews revealed a strong belief from our participants that things could have been different if they had been given the opportunity to learn about the system. For instance,

B: “Hopefully, that's the- like, for- I know the honor's college had a scholarship competition, but I got into the honor's college, but I didn't have quite the ACT to meet in-

to get into the scholarship (unintelligible), so I got totally left out of that. And the problem with that, I see is just like, to get int- it's like if you know you kind of looked over it to get into the honor's college, that you know, I was two points below the 28 that they kind of required. So, I had a 26, so they kind of waived it in, but I couldn't compete in the scholarship competition, or if I did, I didn't know I could, because there's a certain requirement, it's invitation only.”

Later, B further explained,

B: “because I come from this background, when the case is that you know, people that didn't go to c- didn't have parents that go to college didn't prepare the same way as parents that did go to college for their kids.”

The responses showed that our participants were willing to learn about the educational system to improve access to financial aid. For instance,

D: “I'm struggling at college life that's not really like listed there is finding the scholarships, um, finding the resources of- you know how do I handle this loan, er I need another loan to pay this, where do I go for that, so it's kind of navigating the tuition ... I just got a scholarship, and I didn't even, like, know that I got it.”

These participants demonstrated a strong desire to build their capacity of understanding available resources and skills of finding and utilizing these resources, particularly financial support. This finding is opposite to Pratt et al.'s (2019) finding that FGCS have guilt about their opportunities, but their family members do not. In this case, the FGCS who participated wanted to have better opportunities to serve themselves and their family members socially and financially. They also revealed frustration at not knowing the information because of various

reasons. Their frustrations and desires stated that they want to be more independent when finding resources to support their college success.

Internal Conflicts between Willingness to Participate in Student Organizations and the Time Constraints

The study revealed that these participants were eager and willing to join student organizations. However, they experienced a limitation of time constraints. The time constraints became worse when they had to devote their time to both working and studying if they did not have financial support. This finding helps change the thinking around FGCS that they must simply spend more time on their studies; they may not have that additional time available. Nor are they uninterested in participating in other aspects of their college life. Instead, they were eager and willing to participate when the conditions allowed it.

E: "I didn't have to have a job which was really nice, um so I could spend more time on campus and be more active with student organizations and other things going on campus."

C: "Um, it would be nice to have more financial support, um, so I can focus more on school, um to get me to the career that I want."

E: "Like I want to develop more, because w- when like artist grad school, like master's school for art, and I mean mast- er grad school for like anybody, you know it's like- it is a full-time job, and I am already, like, in this space of, like, having to juggle work and school and work and school, so I would need to be in a place, you know, financially, you know, emotionally in- in- the real world, yeah where I have stability and where like I could go to grad school, and that be my full-time job, and I could be there, you know, seven days a week, doing exactly what I need to do to make the work, and you know um

and that gets pretty heavy from what I hear, you know like grad school's very diligent and so I'm not sure that's something that I- I would like to pursue, but you know, maybe not just for a long time maybe it'll be, you know, farther down the road but I would definitely need stability in every other area (laughs) of my life before I- I went to grad school for art.”

All the above excerpts demonstrate the participants' internal conflicts between wanting to be part of the college campus life, such as joining students' clubs or organizations, and the reality that they lack time for these activities. Additionally, when these participants needed to hold a part-time job, the time restraints eliminated their opportunities to enjoy other things that many college students experience. From the interview data, these participants seem to suggest they would have done their experience differently if they had the money to buy that extra time.

A Strong Need to Be Understood Better

There were several moments in the interviews that revealed these participants had a strong need for others to understand them better. The following are two examples where participants recalled having conversations with university advisors about work-life expectations.

D: I was like, [asking my advisor,] "So, like what kind of job did you do while you went to PT school?" And he [my advisor] was like, "What do you mean?" I was like, "Well where did you work? Did you work part-time? What did you do?" And he was like, "Ohhh, no, no, you don't have a job when you're doing grad school!" And it's like, um "What? I have bills. What do you mean I don't do a job?"

Another participant expressed her puzzled thoughts regarding her advisor's suggestion for focusing on spending time on the study and getting a job after her degree.

B: "It's like you can find a job I guess in political science after your graduation, but, it's like, my advisor saying that you don't go to college to get, like, a low paying job [the part-time job]. It's like, I do have debt, um you know? And it's like (laughs) ... I have loans. I need to pay that back."

Participants D and B illustrated a gap between their understanding of college life and that of their university advisors. For both of them, they had bills to pay, and they could not afford not to have part-time jobs. Their advisors' suggestions contradicted their life reality. This tension with the advisors created confusion, and they wished that their advisors could have understood their situation better. What can higher education institutions do to alienate the gap between their advisors' experiences and their advisees' life reality?

Discussion

Study findings revealed participants' articulated desire, needs, and challenges they have while studying in the MWU. This changed researchers' original perspective of what supported them to be successful to utilize what they need to inform the MWU to reconsider its current FGCS' support. A key question that institutions can ask is whether their supports are fostering an environment to assist FGCS to be more independent, to fulfill their motivation to be better off, and to resolve their internal conflicts between their willingness to be involved in the on-campus activities and their time constraints.

As colleges and universities continue to place resources into supporting the FGCS to succeed in their college studies, those who are involved in designing and conducting the supporting programs are urged to switch their stand from "giving support that is believed to be needed" to "providing support based on their actual needs." The traditional way of supporting these students to be successful using a remedial approach, which emphasizes "fixing problems

when they show," is not effective. University faculty and staff members should no longer view FGCS' financial needs as a deficit. Instead, we argue for a non-remedial perspective where we seek input from FGCS regarding their needs and use that information to design programs based on these needs, particularly when more and more FGCS are attending higher education. For example, the university can use additional financial aid as an incentive for students to succeed at college. The incentive can be connected with FGCS gains and is associated with their motivation for college success.

From this study, we also discovered that it was because of the FGCS' motivations that they attended college. The FGCS supporting programs should think of ways to foster these students' motivations. In this process, college staffs' active guidance may play a more important role than passive reactions to the FGCS' needs. Along with the increased motivation for a better income and life in the future, setting up a final goal of assisting FGCS to be independent should be designed and put into place. Achieving this goal requires college supporting programs to empower the FGCS to identify the resources available at the college and find the most beneficial options. To achieve this goal, colleges might offer certain information courses for the first-year experience to support these students. Although this study did not uncover this result and recommendation, the idea is explained in Pratt et al., 2019.

As an example, this study reveals that FGCS have a strong desire for understanding the educational and financial systems. To meet this need, a college might consider adding short-term training about the university educational system, financial system, and university support system for their FGCS to support these students' desire for information and increase their problem-solving capacity. Perhaps a university can train interested faculty and staff members on how to guide FGCS through the steps of these systems.

Further, these FGCS are quite willing to participate in on-campus and off-campus organizations. Unfortunately, they could not do so due to the time restraints. Considering the conflicts between wanting to participate and having no time to do so, colleges may consider creating part-time job opportunities within student organizations to support the FGCS' need for work, at the same time, to accommodate their needs for participating in the student organizations and clubs. Meanwhile, the created job opportunities need to be shared with the FGCS through various channels due to their busy schedule and not paying attention to the student organizations' and clubs' updates. Further, colleges may allocate separate funding to support FGCS participation in these student organizations due to their financial restraints if there are not enough part-time job opportunities in the organizations or clubs. Compensating FGCS for participating in student groups can attract more FGCS knowing that they do not need to sacrifice financial stability to participate. Future studies may focus on the effect of such structure and support on FGCS' engagement and participation in university student organizations and what changes they bring to the university when their voices are heard.

For future research, based on the study's findings, the authors argue that more research should be done by further exploring the experiences of first-generation college students in their daily lives to provide targeted support.

Conclusion

FGCS are not too unlike other college students who enter college with hopes and dreams of being successful and gaining meaningful employment when done. The successful FGCS who participated in this study provided variables that were important to their success in higher education. Although a small sample size limits this study, the information gleaned is helpful to the discussion around supporting FGCS in higher education. The smaller sample size makes

generalizations about the data more difficult, but the issues covered in this research are worth pursuing at each institution of higher education as they learn more about their own students' needs. Hopefully, future studies on how to better support FGCS can focus on larger sample sizes to increase the reliability of the findings presented in this study. Future studies might also focus on the needs and strategies of working with FGCS who are from low-, medium-, and high-income families, therefore, to differentiate support programs, respectively. Individual program mission and practice can benefit from understanding the unique characteristics and needs of the students it serves. This research can be extended to urge higher education faculty who work with first-generation students to reconsider the term retention and target strategies that will actively foster an environment for successful college and career development of FGCS. This article encourages future studies to consider and highlight the FGCS' strengths and to produce programs that will actively pave the path for their success.

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