

An Asset-Based Approach to First-Generation Student Academic Success: Long-Term Impacts of Participating in a First-Year Seminar

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Higher education faculty and administrators have developed various solutions to help support first-generation students during their transition into college, including first-year seminars. This longitudinal quantitative case study sought to add to the research base by investigating the impact of participating in a first-year seminar on academic outcomes, measured by grade point average, on a subset of first-generation students during their subsequent 4 years of school (i.e., across their undergraduate experience). Results contradicted previous findings, discovering no significant quantitative impact of participating in the seminar on grade point average for first-generation students, as well as no differential impact of participating in the seminar by gender. This article includes recommendations for higher education institutions aiming to better support the needs of first-generation students throughout their college experiences.

Keywords: first-generation college students, persistence, first-year experience, student success, asset-based framework, strengths-based approach, academic success

The trends in higher education matriculation and enrollment have been both uncertain and inconsistent. From 1985 to 2010, enrollment grew at an average annual rate of approximately 2.2%, reaching its peak at 18.1 million students (National Center for Education Statistics, 2023). However, since 2011, enrollment has declined at an average annual rate of 1.5%, with the lowest point recorded in 2021 amid the COVID-19 pandemic (National Center for Education Statistics, 2023). As an example, from 2019 to 2023, the overall enrollment of students in college is down by 6.3% (Berg et al., 2023). Interestingly, enrollment is down for almost all race/ethnic student populations; the sole exception is Latinx students, whose enrollment has increased slightly more than 1% (Berg et al., 2023).

Research indicates that the primary motivations for students pursuing higher education include advancing professional opportunities and achieving social mobility (Mintz, 2021; Trinidad et al., 2023; Vaughan et al., 2014). Over the past 25 years, the demographic composition of undergraduate students in the United States has become increasingly diverse (Espinosa et al., 2019; Kim et al., 2024; Reason, 2003; Woodard et al., 2000). A substantial portion of this growing diversity consists of first-generation (FGEN) college students, defined as students whose parents or guardians have not earned a 4-year college degree, although they may have some postsecondary education (FirstGen Forward, 2017). Studies have revealed that FGEN students often enter college with less academic preparation compared with peers whose parents hold college degrees (see Atherton, 2014; Chen & Carroll, 2005; Startz, 2022). Despite these perceived challenges, FGEN students bring to their college experience a wealth of valuable assets and unique perspectives, which are frequently underappreciated by higher education institutions (Allen-McCombs, 2022; Allison, 2024; Almond, 2023; Carballo, 2020; Hands, 2020; Minicozzi & Roda, 2020; Rendón et al., 2018; Wick et al., 2019). Recent data shows that 56% of undergraduates in the United States identify as FGEN college students, and 59% of these undergraduates are the first in their family to attend college (RTI International, 2019). This data shows a significant percentage increase; earlier research reported that 33% of all college students were first-generation (RTI International, 2019). As the number of FGEN students continues to grow, so does the imperative for institutions to provide targeted support to ensure the students' academic success and overall well-being.

Effective support systems are crucial in ensuring the success of FGEN college students as they transition into and navigate higher education. Research highlights that tailored programs can significantly reduce the academic achievement gap between FGEN students and their peers (Pike & Kuh, 2005; Richardson & Skinner, 1992). Such programs and initiatives, when thoughtfully designed, not only benefit FGEN students but also positively impact institutional stakeholders and broader campus communities

(Conefrey, 2021; Daily, 2022; Ezarik, 2022b; Quinn et al., 2019). Many common efforts supporting FGEN college students include the following:

1. Academic advising: These programs cater specifically to the students' unique needs and enhance their academic success (Frazier, 2021; Matthews et al., 2023; Nguyen et al., 2024; Payne, 2007; Swecker et al., 2013).
2. Living-learning communities: These initiatives integrate classroom learning with extracurricular experiences, offering FGEN students opportunities to engage in culturally responsive education and build social networks (Bruner, 2017; Inkelas et al., 2007; Jehangir, 2009; Markle & Stelzriede, 2020; Reyes et al., 2022).
3. Peer-to-peer mentorship: These programs pair FGEN students with mentors having similar experiences, who thus foster a sense of belonging and provide valuable guidance (i.e., Daily, 2022; Hagler et al., 2024; Hirsch et al., 2021; Plaskett et al., 2018; Thurman & Miranda Tapia, 2023).
4. Extended orientation practices: These immersive programs familiarize FGEN students with campus life, helping them acclimate to the college environment and add context for experiences inside and outside the classroom setting (Gregg, 2019; Miles, 2019; Murray, 2022).

Together, these high-impact, innovative practices of support and personalized interventions offer creative and effective strategies to support the academic and social success of FGEN students.

An emerging body of research advocates for asset-based approaches that leverage FGEN students' unique strengths. For instance, Jehangir (2010) indicated that FGEN students ($n = 128$) participating in intentional multicultural learning communities reported feeling "validated as knowers" (p. 533). These communities recognized the cultural wealth that FGEN students brought to their education, which helped counter feelings of isolation at predominantly White institutions. Similarly, Covarrubias et al. (2022) found that underrepresented first-year students ($n = 16$) used their navigational assets to overcome barriers in higher education. Targeted institutional programming that recognizes and values these assets can foster a sense of belonging and improve academic performance. Woosley and Shepler (2011) emphasized that FGEN students benefit from environments that make them feel accepted and supported academically.

Despite the abundance of programs aimed at supporting FGEN students, empirical evidence evaluating their effectiveness is limited. A National Landscape Analysis conducted by the Center for First-Generation Student Success highlighted challenges

faced by practitioners, including misaligned program goals, rushed implementation, and inadequate assessment processes (Whitley et al., 2018).

Moreover, the analysis revealed a lack of consensus on what constitutes “success” for FGEN students (Whitley et al., 2018, p. 54). Although measures such as grade point average (GPA), course grades, and social-emotional connection are commonly used, they may not fully capture the nuanced needs and outcomes of this population (Whitley et al., 2018). Studies focusing on the effectiveness of supportive academic success programs offered specifically to FGEN students are few. Many programs fail to directly address student-identified needs or incorporate their lived experiences into program design.

Qualitative studies have offered valuable insights into FGEN students’ experiences and the types of support they find most beneficial (Allen-McCombs, 2022; Ardoin, 2021; Covarrubias et al., 2022). For example, Ardoin (2021) explored how the intersections of social class, college-generation status, and race/ethnicity influence FGEN students’ experiences, leading to moments of misrecognition by faculty and peers. Covarrubias et al. (2022) highlighted the need for faculty and staff at institutions to challenge their assumptions about FGEN students, particularly stereotypes about the “prototypical” student (p. 48). Their findings emphasized the importance of recognizing and valuing FGEN students’ forms of capital to create inclusive and supportive environments (Covarrubias et al., 2022). Although these qualitative findings are insightful, quantitative research examining the long-term impact of FGEN-specific programming on student success is lacking. Further studies are warranted to assess how effectively programs enhance academic performance, retention, and social integration for FGEN students.

Literature Review

Interest in and research into FGEN students have expanded significantly, highlighting the need for a comprehensive understanding of their experiences. This study uses four key dimensions to explore the FGEN college student experience. This study identifies the common challenges faced by these students. Next, the study investigates resources and strategies that can support their success. Third, the study discusses first-year seminars (FYSs) and analyzes how these seminars potentially influence FGEN students’ academic and social integration during their first year in college. Finally, the study uses Yosso’s (2005) community cultural wealth model to emphasize an asset-based perspective, rather than a deficit-based one, to recognize and value the strengths that FGEN college students bring to higher education.

CHALLENGES FACED BY FGEN STUDENTS

Although this study adopts an asset-based approach, the challenges faced by FGEN students must be acknowledged, particularly given the historical focus on their struggles through a deficit lens. One major challenge is the absence of parental mentorship regarding college life (Covarrubias et al., 2019). Without guidance from college-educated parents, FGEN college students are at a higher risk of dropping out and are less likely to earn a bachelor's degree (Chen & Carroll, 2005). Stress is another obstacle. In their study, O'Neal et al. (2016) examined stressors faced by Latinx FGEN students, distinguishing between noncitizens ($n = 84$) and citizens ($n = 180$). Both groups reported financial stress related to college expenses, but noncitizens faced additional pressures tied to their immigration status. Jehangir et al.'s (2020) photovoice study illuminated struggles faced by FGEN students, including immigrant status, language barriers, family obligations, and career motivations. In that study, a student created a photo collage centered around the word "immigrant," symbolizing the complexity of these struggles.

Despite these challenges, recent scholarship (Almond, 2023; Conchas & Acevedo, 2020; Daily, 2022; Hands, 2020; White, 2016; Wick et al., 2019) advocates for shifting from a deficit-based framework to an asset-based approach. Research by Almond (2023), Daily (2022), Hands (2020), White (2016), and Wick et al. (2019) highlights the unique strengths of FGEN students and underscores the importance of asset-based practices in higher education. For instance, Hands (2020) identified six assets distinctive to FGEN college students: reflexivity, optimism, academic resilience, goal orientation, civic-mindedness, and proactivity. To support FGEN students effectively, higher education practitioners, administrators, and faculty must recognize both their unique challenges and their inherent strengths. By designing targeted student support programs and creating inclusive learning opportunities, institutions can foster environments where FGEN students can thrive academically, socially, and personally.

IMPACTS OF FIRST-YEAR SEMINARS

One promising avenue for supporting FGEN students is through first-year support classes, such as FYs, designed to facilitate the transition to college and foster academic and social success. Such programs have been found to significantly impact FGEN student persistence, retention, and overall academic performance (Bai & Pan, 2010). FYS programs have been shown to increase second-year matriculation rates, college satisfaction, overall GPAs, and graduation rates (Sidle & McReynolds, 2009).

The origins of FYs can be traced back to the late 19th century at institutions such as Johns Hopkins University and Harvard University (Gianoutsos, 2015), but their resurgence occurred in the 1970s at the University of South Carolina. This revival addressed increasing college enrollment rates on college campuses and the growing

challenges students faced in transitioning to the college environment (Keup et al., 2023; Koch & Gardner, 2006). Today, FYS programs are widely recognized as one of the most effective high-impact practices in higher education, promoting student retention, engagement, and academic skill development involvement (Barefoot et al., 1998; Cuseo, 1991; Pascarella & Terenzini, 2005; Tinto, 2012; Upcraft & Gardner, 1989). FYS programs have been extensively researched, with studies highlighting their role in improving college students' study skills and behaviors, problem-solving abilities, and writing and reading proficiency (Barefoot et al., 1998; Tobolowsky & Associates, 2005). The programs also enhance student involvement and sense of belonging on campus. As reported in 2023, an estimated 94% of accredited higher education institutions in the United States offer some form of FYS (Keup et al., 2023).

Moreover, FYS participation is linked to positive outcomes across different student populations. Boudreau and Kromrey (1994) found that FYS positively influences persistence for all types of students (e.g., male, female, and ethnically diverse students). Pascarella and Terenzini (1998) reported that FYS participants are 5%–15% more likely to graduate within 4 years. According to Ishler and Upcraft (2005), FYS participation is “one of the most powerful predictors of first-year student persistence into their sophomore year” (p. 41). Moreover, although FYS is a widely used high-impact practice with documented benefits, only a few studies have specifically examined FYS and its potential impact on FGEN students. Some studies suggest that FYS benefits all students (e.g., Pascarella & Terenzini, 1998), but only a few, such as Vaughan et al. (2014), have explored the specific ways in which FYS address the unique needs of FGEN students. This lack of targeted research indicates a huge gap in understanding of the efficacy of FYS programming in achieving academic student success and how it could be tailored to enhance FGEN student outcomes. This longitudinal quantitative case study seeks to address this gap by investigating the impact of one FYS on the academic outcomes of FGEN students over 4 years of undergraduate study. Specifically, it examines the influence of FYS participation on GPA, as an indicator of academic performance, and on overall student persistence.

Existing literature underscores the importance of collaborative and inclusive approaches to FYS program development. Pascarella et al. (1996) and Pike and Kuh (2005) have advocated for integrated efforts across institutional systems to ensure that learning experiences, curricula, and policies align with student needs. Kovacs (2022) and Schnell and Doetkott (2003) also emphasized the significant, measurable benefits of FYS enrollment, particularly for FGEN students.

THEORETICAL FRAMEWORK

This study adopts Yosso's (2005) community cultural wealth framework to examine FGEN students through an asset-based lens. Yosso challenged the traditional deficit-

based perspective that views marginalized communities as lacking resources or opportunities. Instead, she emphasized the value of cultural knowledge, skills, abilities, and connections that these communities possess but find are often overlooked. As Yosso noted,

the research lens [shifts] away from a deficit view of Communities of Color as places full of cultural poverty disadvantages, and instead focuses on and learns from the array of cultural knowledge, skills, abilities and contacts possessed by socially marginalized groups that often go unrecognized and unacknowledged. (p. 69)

Although Yosso's (2005) work specifically addresses communities of color, its principles are highly relevant to FGEN students who face systemic barriers such as those experienced by marginalized groups (Cataldi et al., 2018; Pascarella et al., 2004). This study reframes the narrative around FGEN students, moving from deficit-based assumptions to an asset-based approach that highlights their inherent strengths. Yosso identified six forms of cultural capital—familial, social, aspirational, navigational, resistant, and linguistic capital—that marginalized groups use to navigate systemic barriers. We researchers acknowledge that our study explored FGEN students, not simply FGEN students of color. Although this framework originates from the experiences of people of color, this study applies the same asset-based lens to FGEN students as a broader population.

ASSET-BASED APPROACH

Historically, research on FGEN students has framed their diverse backgrounds as obstacles to overcome rather than as strengths to leverage. This deficit-based perspective often focuses on perceived shortcomings, such as limited preparedness for college, instead of recognizing the rich knowledge and experiences that these students bring to higher education (Couture et al., 2021). In contrast, an asset-based approach values these differences as powerful resources for teaching, learning, and institutional transformation. As Couture et al. (2021) explained,

an asset-based model recognizes students' cultural differences and funds of knowledge as assets for teaching and learning rather than deficits to be remedied. In addition to respecting students' previous experiences and existing knowledge, the use of an asset-based model acknowledges the role of the hidden curriculum and structural barriers to success in higher education. (p. 128)

Recent studies have increasingly adopted asset-based frameworks to reimagine how FGEN students are understood and supported (Allison, 2024; Almond, 2023;

Carballo, 2020; Hands, 2020; Minicozzi & Roda, 2020; Wick et al., 2019). These studies emphasize that institutions should shift their focus from expecting FGEN students to be “college ready” to becoming “first-generation-ready” by tailoring programs and curricula to meet the needs of FGEN students (Arch & Gilman, 2019). The asset-based approach reframes FGEN students as contributors who bring valuable strengths from their families, communities, and prior educational experiences (Couture et al., 2021). Classrooms can become spaces that harness this cultural wealth when professors design curricula that honor students’ lived experiences. Folk (2018) advocated for asset-based pedagogies in research assignments, emphasizing that they “reframe assignments and enhance opportunities for first-generation students to engage academically” (p. 45). Similarly, Morrison (2017) highlighted the transformative potential of asset-based teaching, asserting that the classroom is a space where students’ knowledge should inform instruction: “It is my students doing the intervention on me, not the opposite” (p. 212).

Several studies have effectively used asset-based frameworks to explore the experiences and strengths of FGEN students. For example, Allen-McCombs (2022) applied Yosso’s (2005) community cultural wealth model to investigate how FGEN students navigated higher education during the COVID-19 pandemic, revealing the resilience and sociopolitical awareness these students demonstrated in challenging times. Similarly, Garrison and Gardner (2012) employed an asset-based methodology grounded in positive psychology to highlight the strengths of FGEN students. Their findings emphasize the significance of faculty development and student services that expand on students’ inherent capacities rather than focusing on perceived deficiencies. Building on this foundation, this study explores the academic performance of FGEN students using an asset-based lens. By framing the research within Yosso’s community cultural wealth model, the study seeks to underscore the potential of FGEN students and provide actionable recommendations for fostering their success in higher education.

Methods

This study employed a longitudinal, quantitative case study approach to evaluate the academic outcomes of FGEN students participating in the FYS. Case studies are often associated with qualitative methodologies; they can also serve as effective frameworks for quantitative research, especially when evaluating the efficacy of complex interventions such as FYS programs (Creswell, 2013; Korzilius, 2009). The bounded system in this study was the specific FYS course offered to students during their first semester on campus (Creswell, 2013). Quantitative case studies in higher education research have proven useful in assessing interventions before and after implementation, determining their effectiveness, and informing programmatic adjustments (Paparini et al., 2020). In this instance, the FYS functioned as the

intervention. The study sought to evaluate whether participation in the FYS positively impacted the academic performance of the FGEN population, with findings intended to guide the development of a tailored FYS curriculum for this demographic.

PARTICIPANTS

The study population included all first-year, full-time, degree-seeking students ($N = 941$) enrolled at a small, private 4-year university in the fall of 2015. However, participation in the FYS was limited because of high demand and constrained capacity. The following process determined enrollment: First, students expressed interest in the FYS through a prematriculation survey. Second, institutional data from this survey identified students—particularly those with FGEN status—who might benefit from such a course, granting them priority access. Then students were enrolled according to availability and interest, with the option to opt out. This process resulted in 144 students (15%) enrolling in one of nine FYS sections. Among these, both FGEN and non-FGEN students were included. The final analysis focused on FGEN students who completed the FYS and graduated within 4 years ($n = 28$) compared with those who did not participate in the FYS but also graduated within the same time frame ($n = 112$).

Although this study adopted an asset-based framework (Yosso, 2005), it examined only the “stayers” (i.e., students who persisted and graduated) to focus on the strengths and achievements of FGEN students. Demographic data for participants is provided in Table 1. The FYS participants were representative of the overall university population: primarily female and White, with a minority identifying as FGEN students.

Table 1

Demographics of University Students Enrolled in an FYS Course

Demographic	FYS participants ^a	Nonparticipants ^b
Gender		
Male	40%	34%
Female	60%	66%
First-generation status		
FGEN	19%	20%
Not FGEN	81%	80%
Race		
Students of color	33%	26%
Not students of color	67%	74%

Note. FGEN = first-generation; FYS = first-year seminar.

^a $n = 112$. ^b $n = 563$.

FIRST-YEAR SEMINAR

The FYS at the focus of this study was introduced to address perceived gaps in support for incoming first-year students. The one-credit course aimed to increase student retention and academic success by equipping participants with essential study skills and learning strategies. The curriculum of the one-credit course counteracted the various difficulties commonly encountered by students transitioning to college, including time management, reading comprehension, goal setting, memory skills, motivation, modes of learning, note-taking skills, management of academic anxieties, effective use of office hours, and vocabulary development. During the course, students were also connected to various institutional resources, such as university offices, staff, and support services, to foster a sense of belonging and community during the transition to college life.

POSITIONALITY

Although the study used a quantitative methodology, the three researchers who conducted this study identify as White and do not identify as FGEN.

Before presenting our findings, we must acknowledge our positionality as researchers. The primary authors of this report identify as White and cisgender, and we recognize that our racial, cultural, and gender identities shape our perspectives on the experiences of students identifying as first-generation, who are more likely to also identify as students of color. We approach this research with profound respect and advocacy for the experiences of these communities. We are acutely aware that our lived experiences may not mirror those of the students we study. Therefore, we are committed to centering their voices and perspectives throughout our research process, and to taking an asset-based approach (Yosso, 2005). Our recommendations emphasize the importance of conducting interviews and surveys to authentically portray the voices of students within this vital group. To mitigate the impact of our biases, we engage in reflexive practices, continually examining how our backgrounds influence our understanding. We draw on the critical work of scholars such as Geneva Gay (2010), Gloria Ladson-Billings (2009), and Zaretta Hammond (2015), which guide us in recognizing the cultural context of students, fostering educational equity, and emphasizing culturally responsive teaching to enhance outcomes. As researchers, we acknowledge our inability to fully comprehend the feelings and lived experiences of FGEN students. Nonetheless, we hope this study contributes to developing policies and practices for higher education institutions, thereby supporting historically underrepresented students, especially those using an asset-based framework. We welcome feedback and dialogue as we seek to deepen our understanding and enhance the impact of our work.

DATA ANALYSIS

The academic progress of participants was tracked from their first semester (i.e., matriculation) through graduation. Although some students graduated early, resulting in smaller sample sizes in later terms, the analysis remained consistent. Descriptive statistics were used to analyze and summarize longitudinal academic performance data of FGEN students. Independent samples *t* tests were conducted to compare the GPAs of FGEN students who participated in the FYS with those of FGEN students who did not participate.

Results

This study investigated the academic outcomes (i.e., GPAs) of FGEN students who participated in the FYS program during their first semester and compared them with those who did not participate. Table 1 provides a demographic breakdown of the two groups. The FYS participants were representative of the broader university population, with no significant demographic discrepancies between the groups. The academic performance of the two groups was analyzed over 4 years, using GPAs as the primary metric. The study sought to determine whether participation in the FYS program had a statistically significant effect on the long-term academic success of FGEN students (Table 2). Only students who graduated were included in this analysis; therefore, sample sizes differed across the terms because students were graduating early or taking terms on leave but then returning.

Table 2*Cumulative Term-by-Term Grade Point Averages for FYS and Non-FYS FGEN Students*

Term	FGEN FYS participants		FGEN nonparticipants	
	<i>n</i>	<i>M (SD)</i>	<i>n</i>	<i>M (SD)</i>
1	28	3.52 (0.34)	112	3.50 (0.39)
2	28	3.46 (0.44)	112	3.48 (0.43)
3	28	3.39 (0.40)	112	3.42 (0.50)
4	28	3.37 (0.44)	112	3.47 (0.43)
5	28	3.52 (0.43)	112	3.42 (0.48)
6	27	3.48 (0.39)	112	3.43 (0.47)
7	28	3.59 (0.42)	104	3.60 (0.38)
8	27	3.63 (0.45)	96	3.66 (0.39)

Note. FGEN = first-generation; FYS = first-year seminar.

A two-way analysis of variance produced several crucial findings. First, students identifying as FGEN had statistically significantly higher overall GPAs ($n = 139$, $M = 3.49$, $SD = 0.35$) than non-FGEN students ($n = 567$, $M = 3.43$, $SD = 0.38$), $F(1, 702) = 3.988$, $p = .046$. Second, the effect of participating in the FYS course was also examined. No clear pattern emerged when various terms were examined individually. In some terms, FGEN students participating in the FYS outperformed those who did not. Opposite results were observed in some terms. However, all differences were minimal and nonsignificant at the term level. Overall, students who completed the FYS course had slightly lower overall GPAs ($n = 144$, $M = 3.38$, $SD = .36$) than those who did not ($n = 562$, $M = 3.46$, $SD = .38$); however, these differences were nonsignificant ($p = .295$). When only FGEN students were considered, both FGEN groups over their academic trajectory while enrolled at the university had nearly identical cumulative overall GPAs ($p = .313$). FGEN students who participated in the FYS course during their academic career earned a cumulative GPA of 3.49 ($n = 28$, $SD = .23$), and those who did not participate earned the same cumulative GPA ($n = 111$, $M = 3.49$, $SD = .36$). Although no significant differences were observed, the small sample sizes across only one cohort of the FYS must be cautiously interpreted.

Second, a two-way analysis of variance was conducted to disaggregate the data by

gender. An overall effect by gender was observed, with female students overall ($n = 457, M = 3.55, SD = 0.32$) outperforming male students overall ($n = 249, M = 3.24, SD = 0.39$), $p < .001$. FGEN male students who participated in an FYS had slightly higher mean cumulative GPAs ($M = 3.38, SD = 0.40$) than FGEN male students who did not participate ($M = 3.31, SD = 0.50$). By contrast, the nonparticipating FGEN female students had slightly higher mean cumulative GPAs ($M = 3.56, SD = 0.31$) than the participating FGEN female students ($M = 3.55, SD = 0.33$). Overall, these results were not statistically significant, which mirrors the result of the effect of FYS participation on the overall participant population. An overall statistically significant effect was noted between gender and cumulative GPAs, $F(1, 671) = 18.77, p < .001$, with female students outperforming male students in terms of GPA (see Table 3).

Table 3

Cumulative Term-by-Term Grade Point Averages for FYS and Non-FYS FGEN Students by Gender

Term	FGEN FYS participants, $M (SD)$		FGEN nonparticipants, $M (SD)$	
	Male ^a	Female ^b	Male ^c	Female ^d
1	3.46 (0.28)	3.54 (0.37)	3.28 (0.51)	3.58 (0.34)
2	3.25 (0.44)	3.56 (0.41)	3.26 (0.52)	3.56 (0.36)
3	3.36 (0.24)	3.41 (0.46)	3.20 (0.61)	3.50 (0.43)
4	3.30 (0.50)	3.41 (0.42)	3.34 (0.46)	3.52 (0.41)
5	3.50 (0.32)	3.53 (0.48)	3.21 (0.49)	3.50 (0.47)
6	3.40 (0.34)	3.53 (0.41)	3.33 (0.50)	3.47 (0.44)
7	3.39 (0.54)	3.68 (0.32)	3.40 (0.48)	3.68 (0.30)
8	3.38 (0.57)	3.76 (0.32)	3.42 (0.45)	3.75 (0.32)

Note. FGEN = first-generation; FYS = first-year seminar.

^a $n = 9$. ^b $n = 19$. ^c $n = 30$. ^d $n = 82$.

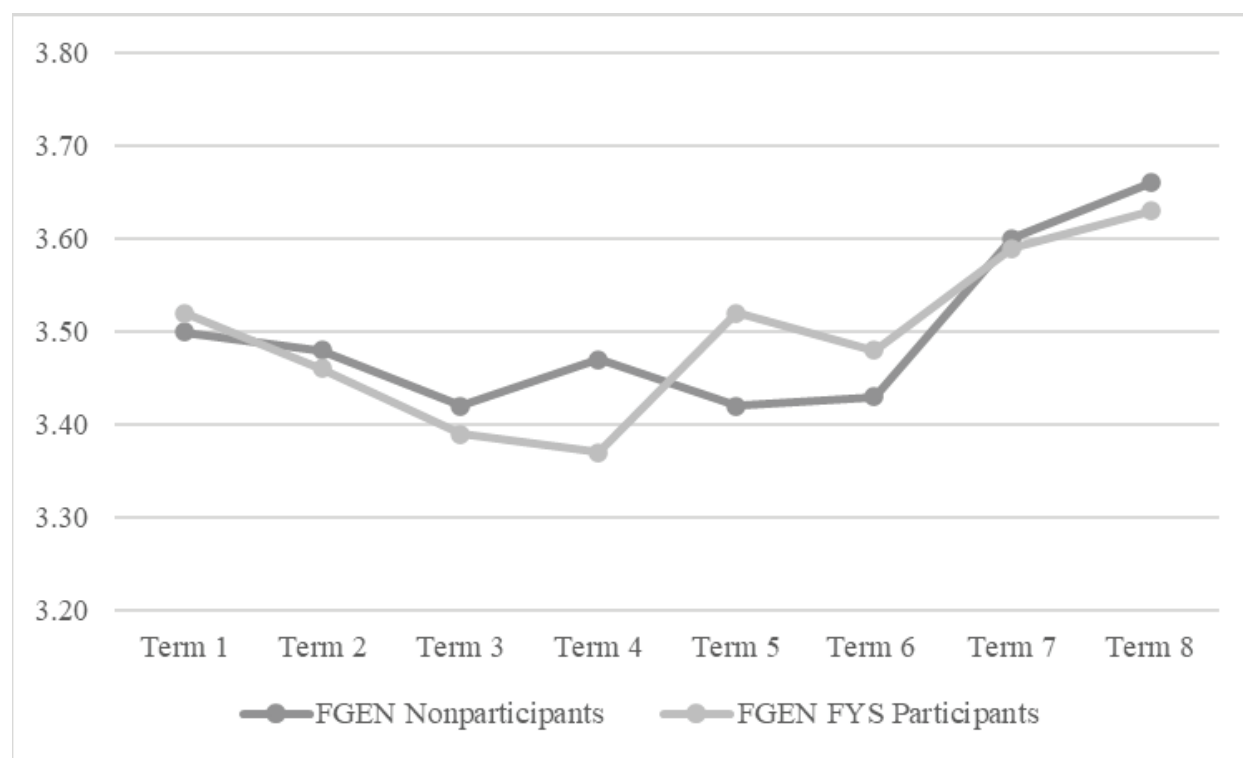
Discussion

Several key findings were obtained in this investigation and warrant discussion. No statistically significant differences in cumulative GPA were observed between FGEN students who participated in the FYS and those who did not. As illustrated in Figure 1, cumulative GPA trends across eight academic terms were consistent for both groups, highlighting the consistency of academic performance over time. This lack of differentiation challenges prior research that emphasizes the effectiveness of FYS programs in improving academic performance and retention (i.e., Barefoot, 2004; Clark & Cundiff, 2011; Miller et al., 2007; Sidle & McReynolds, 2009). The findings

raise important considerations about the design of FYS programs. Unlike many FYS programs tailored to specific student populations, this program was broadly available to all students, which may have diluted its effectiveness for FGEN students. Tailoring FYS programs to meet the unique needs of FGEN students may be necessary to achieve measurable academic benefits. The results must be interpreted cautiously because of limitations such as the small sample size ($n = 28$) and the study's focus on a single institution. This finding is consistent with previous FYS research in the general population (i.e., Clark & Cundiff, 2011) in terms of both size ($n = 109$) and scope.

Figure 1

Cumulative Grade Point Averages by Term for FGEN FYS Participants Compared With Nonparticipants



Note. FGEN = first-generation; FYS = first-year seminar.

When disaggregating the data by gender, no significant differences in the impact of FYS participation were observed. However, consistent with previous research, overall GPA differences by gender were noted, with male students trailing female students in academic performance. This aligns with findings that male students are generally less likely to matriculate, enroll in college, be retained, and persist to graduation compared with female students (Astin & Oseguera, 2012; Habley et al., 2012; Sax, 2008). These findings suggest that FYS programs might benefit from gender-specific adjustments. For example, research underscores the significance of fostering classroom engagement, faculty relationships, and connections to cultural or ethnic student

organizations for male students—particularly underrepresented groups such as Black male students—to support their persistence and academic success (Brooms, 2017; Brooms & Davis, 2017; Brooms et al., 2018; Burnett, 2020). Tailoring interventions to address the unique challenges of male FGEN students may augment the effectiveness of FYS programs.

Surprisingly, the study found that FGEN students achieved slightly higher mean GPAs ($M = 3.49$) than their non-FGEN peers ($M = 3.43$), regardless of FYS participation. This finding contradicts prior research suggesting that FGEN students face greater academic challenges and are less likely to have higher grades and persist compared with the non-FGEN peers (Pascarella & Terenzini, 2005). These findings also build upon Hurtado and Carter's (1997) argument that traditional metrics of college student integration may not fully capture the diverse pathways to success for FGEN students. Contrary to the narrative of academic struggle while transitioning to college, the FGEN students in this study performed comparably (essentially the same mean GPA) to their non-FGEN peers throughout their 4-year college careers, further challenging assumptions about their academic preparedness and persistence.

LIMITATIONS

Like all research, this study has some limitations, which merit careful consideration. A primary limitation of this study is its focus exclusively on FGEN and non-FGEN students who matriculated to the university and earned a 4-year college degree. The initial cohort of first-year students ($N = 941$) experienced a 25% reduction by the study's conclusion, with 234 students leaving before graduation. This analysis does not account for students who departed the university or investigate the reasons behind their withdrawal before graduation, whether academic, social, financial, or personal. Students who left after the fall of 2015 for academic, social, financial, or personal reasons were not included. These omissions limit the study's ability to assess how the FYS may have impacted retention rates or supported students at the risk of leaving. Notably, students who withdrew may not have enrolled in the FYS, thus forgoing its potential benefits, such as academic strategies and resource awareness. Future research should focus on these students, as it is possible that the FYS played a role in their retention efforts not captured in this study.

The design and implementation of the FYS at the participating university introduce further limitations. Enrollment in the FYS was voluntary and based on student responses to a presemester questionnaire gauging interest in a one-credit course designed to support academic transition to college. Several factors restricted FYS enrollment. First, students who were uninterested or unaware of the FYS opted out, even though they may have benefited from the course. Second, several students would likely have benefited academically from the FYS but showed no interest in enrollment.

Additionally, students with strong academic performance prior to university may have perceived the FYS as unnecessary. Further, students with a heavy course load (18+ credits) or scheduling conflicts with available FYS sections were unable to enroll. Students who did not enroll for the course are probably the ones who needed it the most. This self-selection bias likely skewed the sample. Analysis revealed that non-FYS participants had statistically significantly higher SAT scores (verbal, math, and combined) prior to FYS enrollment ($p < .001$), suggesting a predisposition for academic success. SAT scores were used as a covariate in the model, but they did not add power to our models, underscoring the need for further investigation into student access and participation dynamics. Future research should examine institutions where FGEN students are required to enroll in an FYS and evaluate tailored FYS curricula designed specifically for academic transitions.

Finally, this quantitative study relied on GPA—both cumulative and term to term—as the primary measure of FYS effectiveness. However, GPA alone may not fully capture the program’s impact, including short-term and long-term successes. This study does not account for the FYS that likely contributes to broader outcomes such as a sense of belonging (fostering peer relationships and building a supportive community), student–faculty engagement (facilitating meaningful connections with academic staff who can serve as mentors and advocates), and motivation to persist (enhancing resilience and engagement during the critical first year). These qualitative aspects, critical for FGEN student success, were outside the scope of this quantitative study. Additionally, the study could not measure cultural assets unique to FGEN students, which could influence academic and social integration. Future research could adopt a mixed-methods approach to explore the complexities of FGEN students’ experience while transitioning to college and throughout graduation.

RECOMMENDATIONS

The study findings offer valuable insights for advancing support systems for FGEN students across the country. Several recommendations have emerged from these insights to help shape policies and practices in higher education, with a particular focus on the FGEN population.

Recommendation 1: Adopt an asset-based approach campus-wide for FGEN students. This study did not find a significant impact of the FYS on FGEN students’ academic performance, but it did reveal that FGEN students outperformed their non-FGEN peers in cumulative GPA. This finding highlights the potential of an asset-based approach to support FGEN students’ academic, social, and emotional success. Institutions are encouraged to embed this framework into all programs, including FYS initiatives, and cultivate campus-wide culture that recognizes and amplifies FGEN students’ strengths. Faculty development, departmental dialogue, and institutional

policies must align with an asset-based mindset, moving beyond deficit-oriented narratives that focus on the perceived challenges of FGEN students. Garrison and Gardner (2012) advocated for such a shift, emphasizing the importance of leveraging the unique cultural and experiential assets that FGEN students bring to their college journeys. For example, adopting Yosso's (2005) cultural wealth model offers a framework to reframe obstacles as opportunities to highlight students' resilience, adaptability, and resourcefulness.

Practical implementation can take various forms; Georgetown University (n.d.) structured its FGEN-specific FYS program around identifying obstacles while connecting students to institutional support systems. Higher education stakeholders must develop a deeper understanding of FGEN students and their experiences. Another model involved integrating visual thinking and metacognitive strategies into a 15-week FYS curriculum tailored for FGEN students (Long, 2023). Such approaches can enhance students' critical thinking and self-reflection while reinforcing their cultural strengths. Additionally, establishing semester-long learning communities for FGEN students—focused on shared challenges, self-efficacy, and academic skills—can create a supportive environment that honors students' lived experiences. These communities should center around peer collaboration and mentorship, guided by principles of cultural wealth and asset-based thinking (Long, 2023). By reframing support for FGEN students through an asset-based lens, institutions can more effectively empower these students to navigate the transition to college, thrive academically, and persist through graduation.

Recommendation 2: Create a first-year seminar and curriculum specific for FGEN students. Although this study did not find significant GPA impacts for students participating in the FYS, prior research indicates that college transition and support programs for FGEN students can augment their ability to succeed (Jehangir, 2010). When institutions develop FYS programs, explicitly prioritizing the needs of FGEN students is essential, focusing on their unique challenges in navigating the transition to college life. For instance, innovative strategies could include assignments designed to engage students actively with the course structure and content. One such approach involves a syllabus review activity in which FGEN students examine the syllabus and select a future assignment they find particularly interesting. Students then articulate why the assignment resonates with them and its personal significance (Baldwin & Daily, 2020). This practice not only enhances students' understanding of course expectations but also fosters meaningful dialogue about the course's purpose and relevance. Additionally, tailored learning outcomes for FYS programs can demystify the "hidden curriculum" through classroom discussions and reflective journaling activities (Chatelain, 2018). A semester-long focus on metacognition, incorporating strategies such as visual thinking exercises, could also support FGEN students in

developing effective learning habits (Long, 2023). These approaches align with research highlighting the importance of engaging FGEN students in purposeful, structured, and student-centered learning experiences. Recent findings indicate that FGEN students frequently participate in success-oriented programs and perceive them as valuable and effective for enhancing persistence and academic confidence (Daily, 2022; Strayhorn, 2007). Although this study did not demonstrate significant GPA impacts, a specifically tailored FYS program—perhaps one designed to address the unique experiences of male students—might yield greater benefits.

To further enhance the efficacy of FYS courses, institutions should intentionally design curricula, learning objectives, and outcomes that reflect FGEN students' lived experiences. Research underscores the value of specialized course designs, such as FYS and learning communities, in fostering engagement and academic success among FGEN students (Finley & Kuh, 2016; Jehangir et al., 2022; Kuh et al., 2007; Long, 2023; Rendón, 1994).

Our findings suggest that targeted interventions, such as FYS courses, may also benefit male students—both FGEN and continuing generation—who often face distinct challenges in higher education. FYS programs could leverage initial classroom experiences to promote broader campus engagement, helping students build both academic competencies and social connections. By fostering a sense of belonging both inside and outside the classroom, such programs can play a critical role in supporting student retention and success. All campus stakeholders must recognize the unique challenges faced by FGEN students and design FYS courses and curricula that not only address these challenges but also capitalize on the strengths and resilience that these students bring to their academic journeys.

Recommendation 3: Prioritize meaningful relationships when supporting academic success of first-generation students. Although the academic outcomes of FGEN students in an FYS course are important, the true value of such a course may lie in fostering a sense of belonging and supporting students' persistence toward earning a 4-year college degree. Moreover, success for FGEN students should be redefined to extend beyond academic achievements, such as GPA, to encompass the myriad of experiences that enrich their college journey. Institutions aiming to support FGEN students must prioritize fostering meaningful relationships, as these connections are critical to both academic and social success. Research underscores that greater participation and engagement with academics enhance the overall student experience (Awang et al., 2014). Additionally, social connections are fundamental to the learning process, influencing the academic adjustment and persistence of FGEN students (Conefrey, 2021; Daily, 2022).

FYS instructors play a pivotal role in shaping the experiences of FGEN students, regardless of whether they themselves identify as FGEN (Ezarik, 2022a). Faculty and staff interact regularly with these students, notably during their critical first year of college, making them instrumental in fostering motivation and confidence. Positive and consistent interactions can have a lasting impact, extending beyond the classroom and encouraging students to engage in other aspects of campus life. By creating safe and inclusive spaces for collaboration and discussion, instructors can empower students to explore available resources, normalize the process of seeking help, and build self-advocacy skills. To maximize their impact, faculty and staff must receive adequate training and engage in reflective practices that challenge deficit-based thinking about FGEN students (Covarrubias et al., 2022). Additionally, incorporating guest lecturers and campus partners into FYS curricula can further enhance student engagement. Introducing students to key resources and their representatives early on can build familiarity and trust, making it easier for students to seek assistance when needed.

Conclusion

As highlighted in previous research, challenging the prevalent deficit mindset applied to the FGEN student population is essential (Garrison & Gardner, 2012). Colleges and universities must prioritize targeted support systems specifically designed to address the unique needs of the FGEN population. Campus faculty, staff, students, and administrators must collaborate regularly, fostering a campus-wide commitment to augmenting the academic and social success of FGEN students (Pike & Kuh, 2005). Although this study found no significant impacts of the FYS alone, it highlighted the effectiveness of the university's broader resources and support systems in promoting FGEN student success. Institutions must recognize the importance of personalized student support services and consider how these initiatives can enhance student retention and academic outcomes (Garrison & Gardner, 2012).

When developing policies and procedures, an asset-based mindset should be adopted by all campus partners. Such a perspective emphasizes the strengths and talents that FGEN students bring to their educational journey rather than focusing on perceived deficiencies (Carballo, 2020). Research indicates that FGEN students consistently demonstrate unique skills and strategies that aid them in navigating the college environment. Garrison and Gardner (2012) argue that studying the narratives of FGEN students reveals their resilience and resourcefulness, which are pivotal to their pursuit of higher education and persistence through challenges. Higher education faculty and staff must actively recognize and value the unique strengths that FGEN students contribute to the campus community. These strengths, including diverse perspectives and lived experiences, of FGEN students have the potential to enrich

the broader university environment (Lash & Snider, 2017). Additional studies are warranted to explore the best support structures that can aid FGEN students as they navigate college.

Declaration Statement

No potential conflict of interest is reported by the author(s).

Acknowledgments

We thank all those educators, partners, and allies who continue to see the gifts and talents of first-generation college students worldwide.

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