

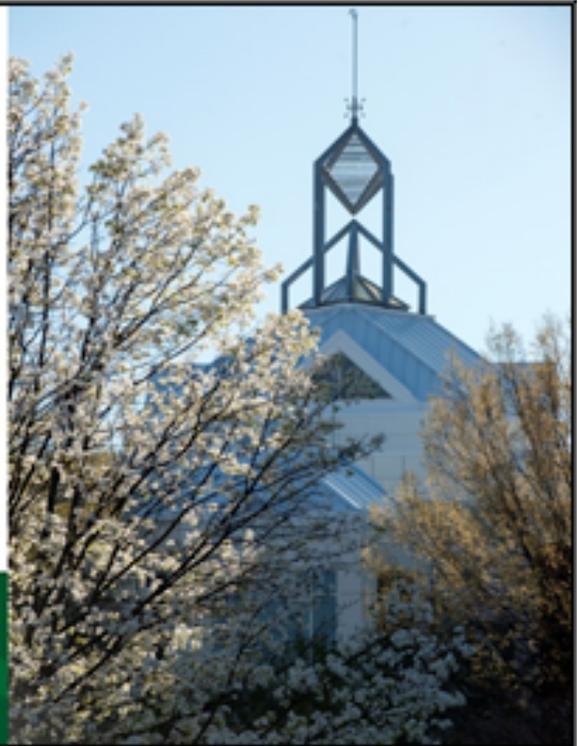


First-Gen+ Center

**Summer Bridge Programs and First-Generation
College Student Success at George Mason
University:**

**Insights and Promising Practices for Bridge
Program Development**

<https://firstgen.gmu.edu>



*Sponsored by Ithaka S+R in fulfillment of an American Talent Initiative
Academic Equity Topical Research Project.*

**Summer Bridge Programs and First-Generation College Student Success at
George Mason University:
Insights and Promising Practices for Bridge Program Development**



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Summer Bridge Programs and First-Generation College Student Success at George Mason University: Insights and Promising Practices for Bridge Program Development

About Ithaka S+R

Ithaka S+R helps academic and cultural communities serve the public good and navigate economic, technological, and demographic change. Their work aims to broaden access to quality postsecondary education, improve student outcomes, and advance research and knowledge. Ithaka S+R's strategic advice and support services help institutions improve their performance and further their missions. They generate action-oriented research for institutional decision-making and act as a hub to promote and guide collaboration across the communities we serve. With their partners, they design and evaluate projects that make higher education, scholarly communication, and cultural collections more accessible to diverse populations.

About George Mason University and the First-Gen+ Center

George Mason is committed to enriching the lives of its students with impactful, transformative learning experiences. George Mason University is Virginia's largest public research university. Located near Washington, D.C., Mason enrolls more than 35,000 students from 130 countries and 50 states. Mason has grown rapidly over the past half-century and is recognized for its innovation and entrepreneurship, remarkable diversity, and commitment to accessibility. It embraces and is recognized for its culture of innovation, entrepreneurship, and diversity, and is committed to making its classrooms available to students no matter where they live.

About George Mason University's First-Gen+ Center

The First-Gen+ Center serves as an accessible starting point for students (and their families) to understand and connect with relevant university resources. The team prioritizes data to better understand the student experience and proactively works toward improving the campus to be "first-gen ready" and "undocufriendly" throughout each university area. The Center works to enhance the collegiate experience through services, programs, policy awareness, and educating the campus community. Staff on the team collaborate across campus and beyond, in order to streamline resources and supports for students, including participating at local and national levels to share practical and scholarly content as a catalyst for institutions to broaden their work.

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Section I Project Context

The purpose of this project was to explore the intersection of first-generation college student (FGCS) identity and summer bridge program experiences more deeply. This exploration was engaged with the aim of providing evidence-based insight and practitioner advice to colleagues at institutions building and/or enriching their own summer bridge programs for FGCSs and other vulnerable, underserved, and often marginalized student populations. We invite audiences to think about this document as a blueprint of possible pathways and structures for program-building and as a sharing of stories and perspectives through the important voices of students and allies.

We offer this project because summer bridge programs effectively demystify the college experience while preparing students to be successful through skill-building workshops, peer mentorship, and community-building (Sablan, 2014; Schelbe et al., 2019; Wachen, et al., 2018). As evidenced in the narratives and observations that will be shared in this document, the George Mason University (GMU) First-Gen+ Center's Student Transition Empowerment Program (STEP) was launched in 1990 as a state-specific initiative to support the retention of FGCSs. While the setting for the data that grounds this project is a large, public, research intensive (R1) university in the MidAtlantic with 33% of its undergraduates identifying as FGCSs, we hope that the findings and practices are generalizable and useful to a broad range of colleges/universities.

Collecting the data central to this project was made possible by the generous gift of Ithaka S+R and is aligned with our shared goals of supporting students and creating equitable pathways toward success and life-long learning. Data was collected January 2023 through March 2023 and offers the most current perspective of our GMU STEP Scholars, GMU alumni and former STEP Scholars, and GMU campus partners who support and enrich the STEP program. In the sharing of constituent voice and implications, we offer this work humbly and in community.

“When I was in STEP, being a first-gen college student meant that I was the first generation going into college, because my parents haven't been to college. Now that I've been through STEP and I've been in college for about four years now, I just feel very proud to be a student that is seeking higher education. Being a first-gen college student has made me feel empowered, and being in that community with other people who are also first-gen students, and we're all seeking higher education and trying our best to be better versions of ourselves through meeting that goal, getting higher education.”- GMU STEP Scholar

Section II

Summer Bridge Program History and Context at George Mason University

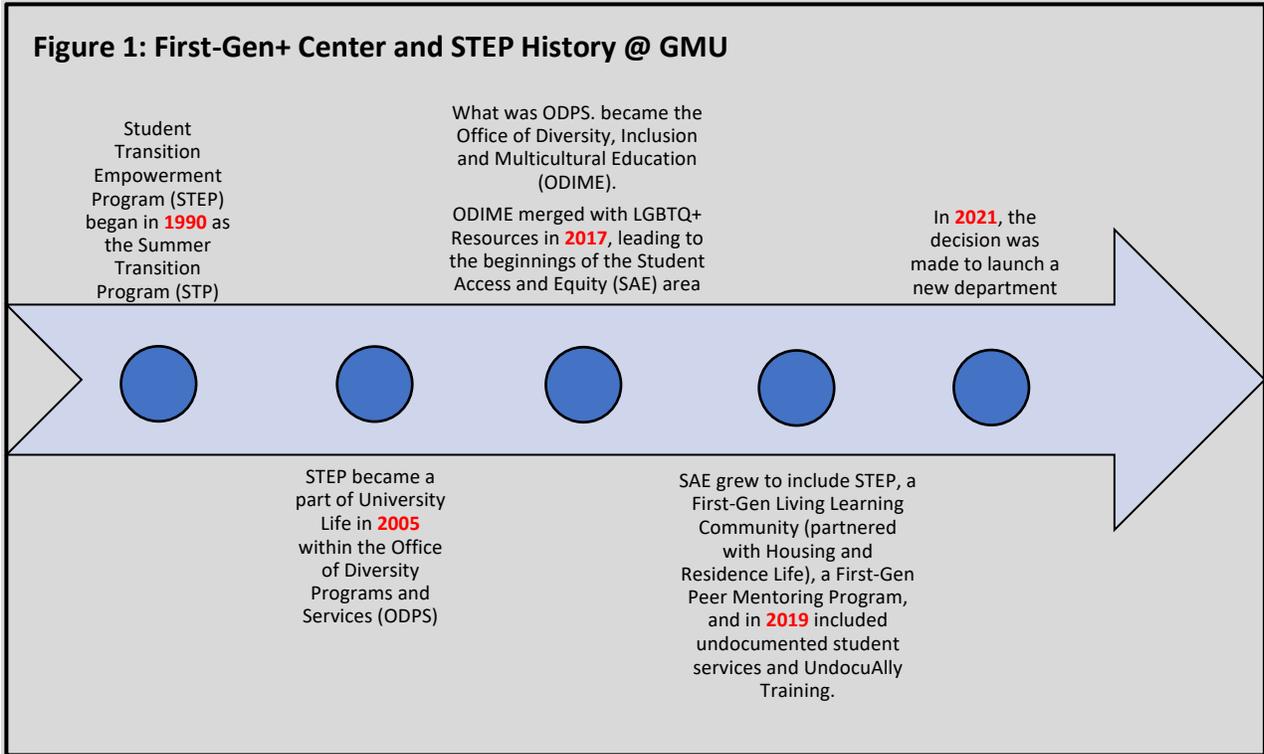
The Student Transition Empowerment Program (STEP) began in 1990 at George Mason University (GMU) in Fairfax, VA, and, at the time, the program was known as the Summer Transition Program (STP). This program admitted up to 60 participants and was funded through the State Council of Higher Education for Virginia (SCHEV). STP enabled students to participate as a part of conditional enrollment to GMU.



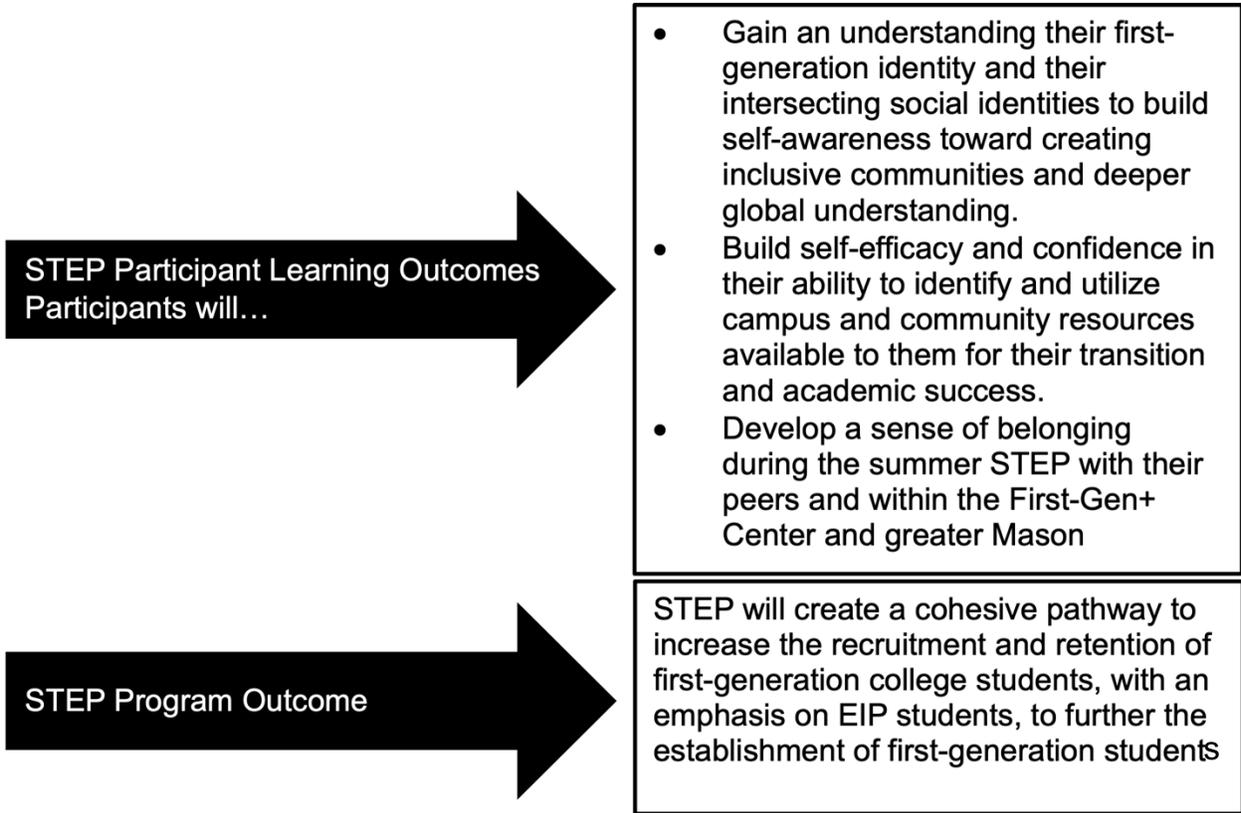
Participants were motivated in their desire to earn a college degree, but they also benefitted from the added mentorship, staff support, tailored academic preparation, and connection to a close-knit community. Most student participants were from Black and Latine racial backgrounds; this participation trend continues in the GMU program today along with the understanding that a majority of program students identify as being eligible for free/reduced lunch.

In 1994, the STP was renamed to the Virginia Student Recruitment & Retention Program (VSRRP). In the early stages of the program, students were enrolled in ENGL 101, COMM 100, and an empowerment seminar each summer. In 2001, the program was re-named again to the Summer Enrichment Academy (SEA), but the SEA program was discontinued in 2002 due to a loss in SCHEV funding. In 2005, University Life, the division of student affairs at GMU, was petitioned to allocate funds to support the return of a transition program for first-generation college students. This catalyzed the birth of the Student Transition Empowerment Program (STEP) in its current form as a multi-year summer bridge program for first-generation college students admitted to GMU. Since 2005, the program has been funded through University Life with state funds and student fees. With about 30 students per summer attending, STEP initially recruited heavily from the Early Identification Program (EIP), a GMU unit that focuses on college preparation as early as fifth grade for students in Virginia.

At GMU, the First-Gen+ Center (a University Life department) is the home of STEP. Recently launched in 2021, the First-Gen+ Center (<https://firstgen.gmu.edu>) supports students who are historically underrepresented in higher education and their allies while specifically centering college students who identify as first-generation, who identify as undocumented, have refugee status, and those who have families with limited income. Figure 1 below offers a description of the departmental history that includes the development of STEP over time.



The overarching learning outcomes for GMU’s current-day STEP program, writ large, as well as for individual STEP participants follow:



Section III Cohort Recruitment and Selection



The STEP recruitment and application process begins in the fall semester prior to the summer cohort. GMU early admission students are recruited first via email and in subsequent opportunities through high school visits, mailings, and outreach during spotlight days when students and their support systems (family, guardians, friends) visit campus to decide on attendance to GMU. Recruitment also happens frequently within families when an older sibling has participated in the

program, when high school communities are close knit and share back with students who are nearing graduation, and through events that are organized by EIP that work with middle and high school students through college preparatory initiatives.

By the February before the summer cohort is due on campus, the STEP application opens to students, and it closes in May, which allows time for applicants to submit materials, ask questions, and seek recommendations. Application components include:

- Demographic information (racial and ethnic identity, gender, languages spoken in the home, ability status, and socioeconomic status);
- Academic information (high school attendance, grade point average (GPA), college courses completed or advanced placement programs);
- Social information (hobbies, interests);
- Essay questions that ask about the importance of the first-generation identity and how applicants hope to grow during the STEP program; and
- Information for reference letters. Letters of reference are submitted separately by counselors, supervisors, and/or teachers who can share details about the student, their preparedness, and challenges so that the STEP staff can plan for support.



Recruitment – Research Insights and Practitioner Advice: Identifying Opportunities for Supporting Recruitment

As foundation for this practitioner support document, our team administered surveys to *and* conducted interviews with GMU STEP Scholars (who participated in summer cohorts 2019-2022) and STEP Scholar-Alumni (who participated in summer cohorts 2015-2018 and since graduated). From the completed surveys of 50 Scholars and 19 Alumni participants, several important insights were revealed about STEP recruitment, areas for improvement, and wishes for the future. Below, we share a few salient, direct quotes from participants who completed surveys and/or interviews as well as a bit of practitioner advice considering these quotes and larger concerns.

“Well, with STEP, I was never going to apply. My counselor sent it to me through her email. It was like, I want to do stuff over the summer and hang out with my family. But I was like, oh, let’s just try it out. And I didn’t think I was going to enjoy it, but I loved it. And it was the most memorable part of my college experience so far.” - STEP Scholar

“I would want more communication from the program itself. I know when I got accepted, I didn’t really know what STEP was or what to prepare for it and I felt lost, and I know some people in my cohort felt that way too.” - STEP Scholar

“Expanding this program to reach students beyond 30. Is there a way that the university can provide funding to double or triple the amount of students involved in the program? Also expand STEP past those who are residents of Virginia - there are many students who come from out of state and don’t have the background nor many connections once they come to Mason.” - Former STEP Scholar and Current GMU Alum

So What?

Pre-Recruitment	During Recruitment	Post-Recruitment
<ul style="list-style-type: none"> • Collaborate with admissions to add tags on application materials, which help identify first-generation applicants. • Given that potential participants have yet to learn what they will need to succeed in college, emphasize the value of the program. • Employ multilingual, multidimensional marketing strategies (social media, emails, webinars). Contact secondary school counselors to build program awareness. • A question to consider: Does your institution have resources to <i>also</i> offer a virtual session in order to reach a broader audience? 	<ul style="list-style-type: none"> • Once the application opens, log questions received from applicants as well as your responses to identity patterns in inquiries. These common questions can be used to revise the website/application for future cohorts. • Create a FAQs page to help support applicants and alleviate some of the burden on staff. • Send frequent reminder emails to target audiences in order to build interest and keep busy students and families engaged. • Maintain clear connections with potential applicants’ families to help them build knowledge around the college process. 	<ul style="list-style-type: none"> • Once the application deadline passes, prioritize the review process. Some students will decide to go to a school based on getting an early acceptance to a summer bridge program. • Communicate with accepted students clearly, often, and in English AND household language so that students can be engaged as well as families. • Host “what to expect” virtual and in-person sessions for families and students so that the summer program structure and learning outcomes are clear.

Section IV Mentor Development

While the application process is underway at GMU, the education and preparation of the STEP mentors is taking place. In the past, mentors were trained during the 1-2 weeks prior to the arrival of the participants for the summer. Feedback from the mentors from the 2019 and 2020 cohorts guided the transition of preparation to a semester-long education course (i.e., UNIV333 Peer Leadership: Peer Mentors) that started in 2021 in partnership with University Studies. UNIV333 offers a full 12-weeks of team building and incremental learning to support an engaged and more connected team for the summer program. The overarching learning outcomes for the UNIV333 course follow:

UNIV333 Learning Outcomes
Participants will...

- Gain awareness and knowledge of needs and support required for first generation and/or undocumented college students.
- Become comfortable serving as a resource to students aided by the First-Gen+ Center.
- Learn and grow from this experience to become an advocate for this population and community.
- Become knowledgeable of campus resources, clubs, and organizations.
- Build a supportive network of peers, faculty, and staff to assist you in your role as a Peer Mentor.

In 2022 the full-time staff members teaching the course completed a Peer Mentor Certification course with the National Association of Student Personnel Administrators (NASPA). In advance of summer 2023, all mentors will complete the same certification—adding to their skill set and preparation for the summer program.



Mentor Development – Research Insights and Practitioner Advice: Identifying Opportunities for Scaffolding and Supporting Mentoring

“I am very passionate about STEP, that's why I want to be a part of this program as a mentor; I believe that everyone behind this team has done an amazing job in a sense of keeping this program alive so that students can feel at home...” - STEP Scholar

As underpinning for this praxis guide, our team administered surveys to *and* conducted interviews with GMU STEP Scholars (who participated in summer cohorts 2019-2022) and STEP Scholar-Alum (who participated in summer cohorts 2015-2018 and since graduated). From the completed surveys of 50 Scholar and 19 Alumni participants, several important insights were revealed about mentoring and mentor development. In the table below, we share two of these major findings.

<p>STEP participants viewed mentors as essential to their personal, professional, and academic development.</p>	<p><i>“And for the mentors they were the ones that showed me the support and persuaded...guided me towards having the confidence to be able to become a leader on campus...”</i></p> <p><i>“STEP mentors felt like to me, an older sibling or guardian who could answer all the questions I had since I couldn't ask my parents for help about such things.”</i></p> <p><i>“STEP was beneficial for my first year at GMU because I learned from my mentors how to register for classes, what resources are there for the GMU students, how to find our way to the lecture halls...”</i></p> <p><i>“Additionally, the mentors put me on to things like resume audits and RA applications...”</i></p>
<p>STEP participants wanted mentors to be bridges and harbors that offered safety and support as participants experienced college (and beyond).</p>	<p><i>“Make sure that your support is meaningful. If you are interested in these roles, always be intentional and passionate about your students!”</i></p> <p><i>“Pleaseeeeeee make an effort to catch up with student even after the summer is over. I wish my mentor and I stayed in touch.”</i></p> <p><i>“Continue to be approachable for the first year after STEP, since Fall/Spring are different than Summer semester.”</i></p> <p><i>“Think that just finding a way to connect and bond with your mentees even after STEP would be pleasant. Not just checking in on us because you're told to do so, but rather genuinely because the relationships you made during STEP were real and genuine.”</i></p>



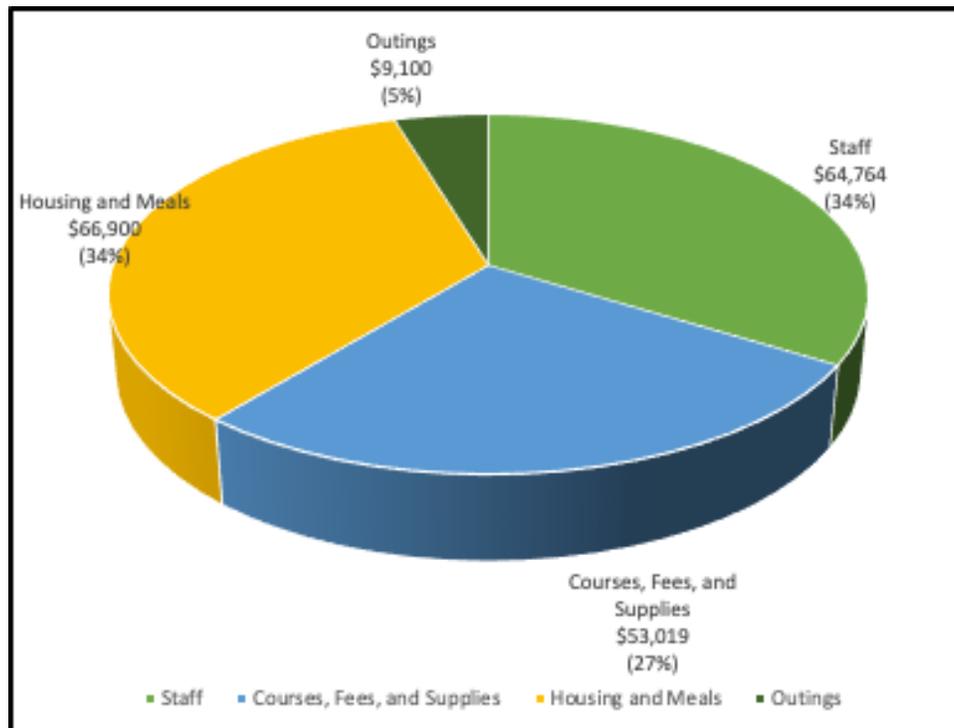
- Participants rely on mentors to provide a wide range of support. Mentors must not only be trained in the art of the job, but also the necessity of self-care. Participants can sense burnout, fatigue, and distancing. Centering mentor care is critical.
- Offering mentors certification provides a life-long gift for their work and underscores a deep commitment to the importance of the summer program and mentors' invaluable support of it.
- Consider structures and programming that permits mentors to support STEP participants beyond the program but in a manner that is consistent with mentor well-being (e.g., planned reunions, outings, community field trips, campus walk-about sessions).

Section V Budget Structure

While the expense of a residential summer bridge program can be intimidating when accounting for the cost of room/board, tuition, staffing and experiential learning opportunities, financial help is possible through campus and community collaboration, state/federal funding, and donor fundraising. The average cost of a student in 30-person residential cohort averages to a total of \$7,833. The COVID-19 pandemic also led to the offering of a fully virtual cohort of 56 students (highest number of participants in modern program history), which, without the costs of room, board and transportation, averaged a cost of \$4,957 per student. The total programmatic budget of STEP is dependent upon the number of participants due to the individual costs of room, board, and tuition. However, having a larger cohort of students decreases the cost per student.



Garnering campus support is key to mitigating the cost of the program, and in particular housing and tuition costs. Below is an example of costs by type for the summer program for 30 participants attending in-person. The breakdown includes staffing costs.



Beyond financial help for the summer program, GMU offers the STEP Scholarship, supported by individual donors and annual proceeds from the Diversity Scholarship Golf Classic hosted by the University Life Advisory Board. As a conduit for ongoing investment in the success of students from underrepresented backgrounds, the University Life Advisory Board serves in an advisory capacity for the Vice President of University Life, while maintaining a high level of interest in building donor capacity to sustain the work of the division: <https://ulife.gmu.edu/about-us/ul-advisory-board/>. One such element of this work—the STEP Scholarship—is accessible by application each semester and on a rolling basis to STEP Scholars who have completed the summer program. Included in the scholarship program is the opportunity to complete service engagement activities that bolster the First-Gen+ Center and other departments on campus, thus, fostering involvement, connection, and new skills.



Budget Structure – Research Insights and Practitioner Advice: Incremental Growth and Component Development

While discussing budget structure with students and partners was beyond the scope of our project, survey and interview responses from our 80+ participants did underscore the deep value of STEP, particularly with respect to the no-cost to students structure. Following we offer a student passage and our interpretation of next steps.

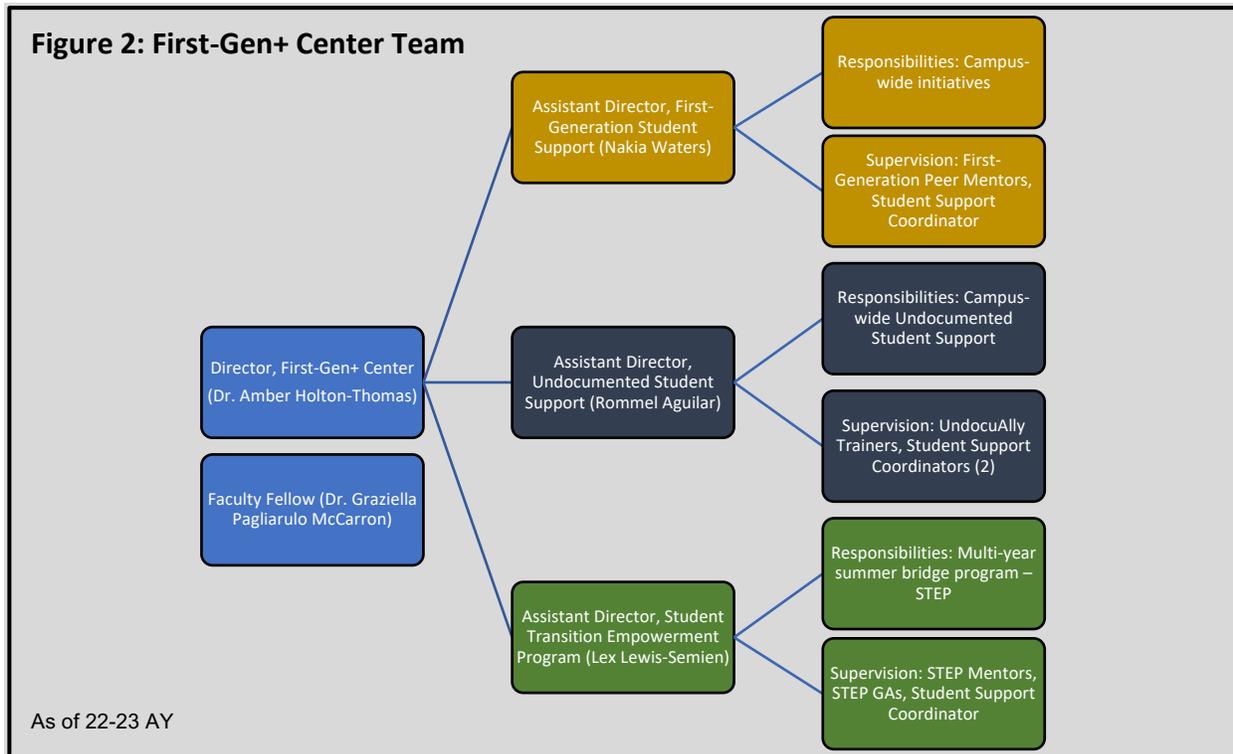
“Expanding this program to reach students beyond 30. Is there a way that the university can provide funding to double or triple the amount of students involved in the program? Also expand STEP past those who are residents of Virginia - there are many students who come from out of state and don't have the background nor many connections once they come to Mason.” - Former STEP Scholar and Current GMU Alum

So What?

- Given that costs for housing/meals (34%) and staffing (34%) constitute over half of the STEP budget, it is worth reconsidering the tuition costs and asking if the residential outcomes such as sense of belonging and connection with mentors and staff can be achieved through a lower-cost virtual (or hybrid) program.
- Hand-in-hand with the bullet above, thinking about virtual and hybrid (or staggered start programs) might enable a larger participant group, thus, offering greater access to STEP across a broader swath of admitted students.

Section VI Staff Structure

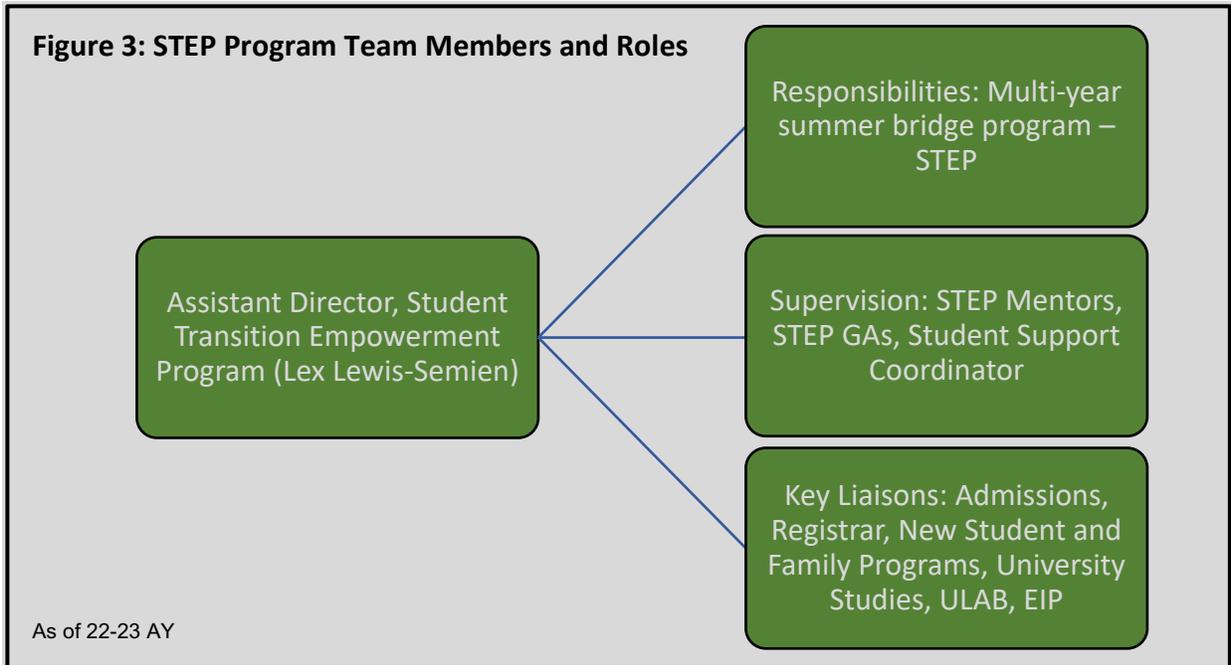
The First-Gen+ Center, in which STEP is housed, has a total of four full-time staff, including a Director, three Assistant Directors, and a Faculty Fellow (see Figure 2).



Prior to 2020, the responsibilities of STEP were incorporated into one Assistant Director role who managed first-generation college student programs campus-wide. However, with additional financial support from the state of Virginia, it was determined, after a review of the responsibilities and duties, that there was a need for a full-time staff member to manage and lead the multi-year program—i.e., the Assistant Director of STEP role articulated above in Figure 2.

The STEP program is organized and lead by an Assistant Director with guidance from the Director of the First-Gen+ Center. The Assistant Director is responsible for the execution of the program, multi-year activities and initiatives, and the supervision of staff: Graduate Professional Assistants, STEP Mentors, Student Support Coordinator, and a Program Assistant. The supervision of the STEP Mentors has fluctuated between the Assistant Director and Graduate Professional Assistant depending on staff needs and the developmental needs of the mentors.

Please see Figure 3 below for STEP team roles.



✓ Staff Structure – Research Insights and Practitioner Advice: Identifying Opportunities for Building Staff Efficacy and Well-Being

In our discussions with STEP Scholars in preparation for creating this guide, they offered some affirmations and helpful advice for staff. Those thoughts follow.

[To STEP mentors] “Don’t overwork yourself. There is so much you can do to share all you know so that the mentee feels prepared. Even when you think it’s small and it doesn’t matter, it does. I got a lot of great advice.” - STEP Scholar

[To STEP mentors] “Take it seriously, you’re in that power position where you’re looked up to as a role model. Even though you might not have your stuff together, people think you do.” - STEP Scholar



- Professional and student staff roles should be well-defined, and responsibilities must be adhered to during the program. As STEP students arrive, and the program is in full swing, the lines of specific roles can easily be blurred to maximize efficiency. However, this will lead to burnout, especially for the student staff, and accountability for tasks becomes challenging to track and enforce.
- Due to the presence of shared identity(s), the component of going above and beyond is especially natural to student staff and mentors. As such, professional staff must ensure a well-being focus for student staff (and themselves).

Section VII Multi-Cohort Support

Recognizing that students benefit from ongoing social and staff support, STEP is divided into two main components, the (1) summer program and (2) ongoing support and programming beyond the summer to and beyond graduation. The summer program lasts a total of six weeks and, outside of the fully virtual program held in 2020 in response to COVID-19 protocols, the experience is fully residential, with participants and staff all residing on campus in the residence halls. The six-week summer program kicks off with an opening reception for students and their families and closes with a graduation when STEP participants become STEP Scholars.

As students continue through their academic career as STEP Scholars, they are provided with on-going support, cohort-based activities, and specialized development workshops. The role of STEP as a transition program, beyond the summer bridge component, is significant as the entirety of a student's academic career can be seen as transitional. STEP Scholars receive particularly high-touch engagement during their first full academic year via peer mentor one-on-one meetings, mandatory success coaching, regularly scheduled check-ins with professional staff, and program specific initiatives.

The goal of providing students with holistic and dedicated support is shown through the program's coaching and staff support structure. Students are provided with identifiable peer and professional staff that serve as direct points of contact throughout their academic career. The multi-tiered/faceted approach relies upon the assigning of a peer mentor, departmental student staff member, designated certified success coach, and protected time with the Assistant Director who oversees the program.



Cohort Support – Research Insights and Practitioner Advice: Identifying Opportunities for Connection with Campus Partners

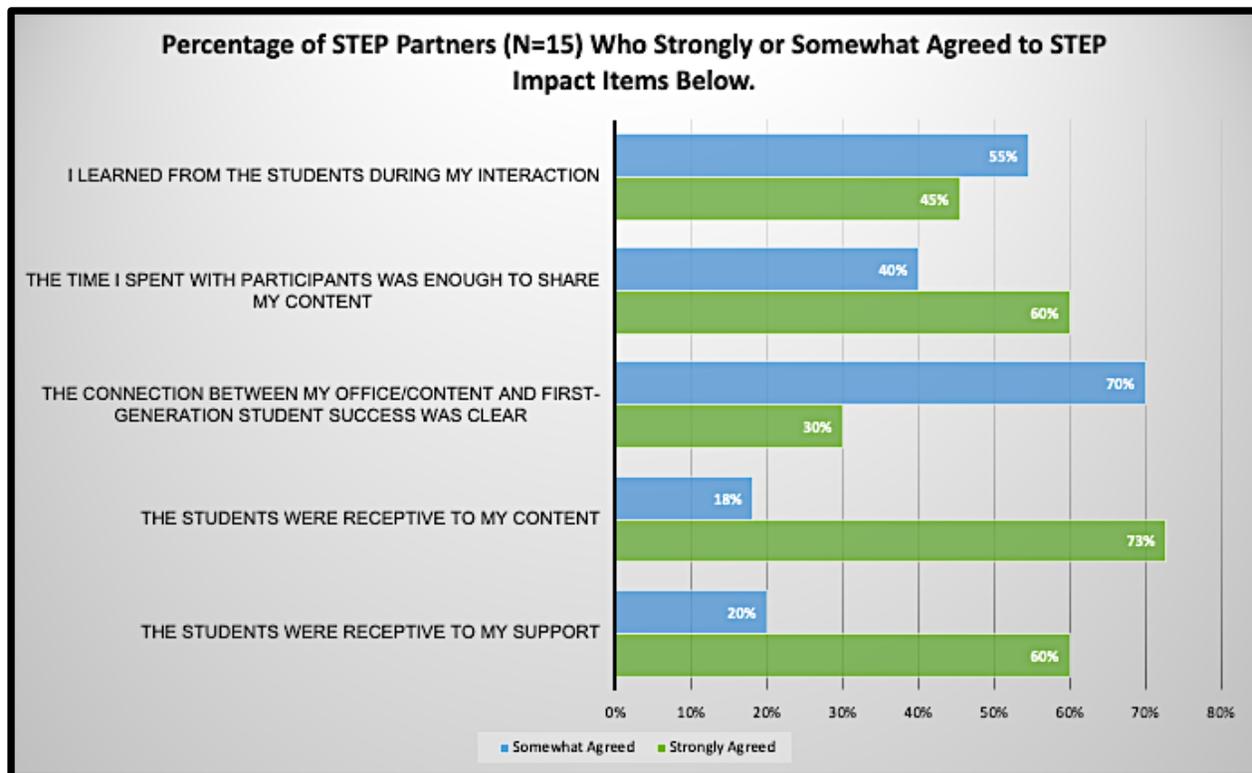


"It's on all of us, I think, to work with first-gen students. We certainly have dedicated resources for that, but I think this is a university-wide program. This is not just specific to an office. And so, I think involvement looks like everybody should see this work as their work, no matter how big or small it seems that they're in it." - STEP Campus Partner

Our aim here was to offer a praxis guide grounded in research and human experience. As such, our team administered surveys to *and* conducted interviews with campus partners (e.g., faculty, staff, administrators) who had served the STEP program in some

capacity (e.g., offered a course, facilitated a student services workshop, served as a mentor) as far back as 2013. The 15 participants who completed surveys characterized the extent to which they agreed that their involvement had been useful and effective.

The bar chart below indicates that, of the STEP partners surveyed, 73% strongly agreed that students were receptive to their provided content, and 80% strongly agreed that students were receptive to support they provided. Interestingly, survey findings underscore that, perhaps, the connection between partner programs and first-generation college student success was not completely clear.



So What?

- The connection between content that STEP partners offer and first-generation college student success must be clarified for partners so that they understand their specific role (and the role of their program) in student support.
- A brief orientation for STEP partners to the STEP components (e.g., class, workshops, outings, outcomes) is necessary in order for partners to make the connection between their participation and student benefit. These orientations can take the form of webinars, face-to-face meetings, and/or on-demand videos.
- All programs offered by partners should be aligned with STEP learning outcomes.

Section VIII Institutional Recruitment and Retention

The benefits of STEP extend beyond the support offered to first-generation college students as whole individuals. STEP also has recruitment and retention implications and benefits for the institution. For example, for some students, learning about STEP influences their decision to attend GMU.

Regarding retention and graduation, historical data shows that graduation rates for STEP participants are higher than those of the broader student body. Below is an example of retention data comparisons from STEP 2005-2011 cohorts.

Six-Year Graduation Rate Comparison: STEP and Larger GMU		
Cohort Year	GMU	STEP
2005	64.4%	70.4%
2006	66.0%	76.2%
2007	66.7%	73.9%
2008	67.2%	80.0%
2009	69.3%	80.0%
2010	69.8%	73.7%
2011	70.8%	78.3%



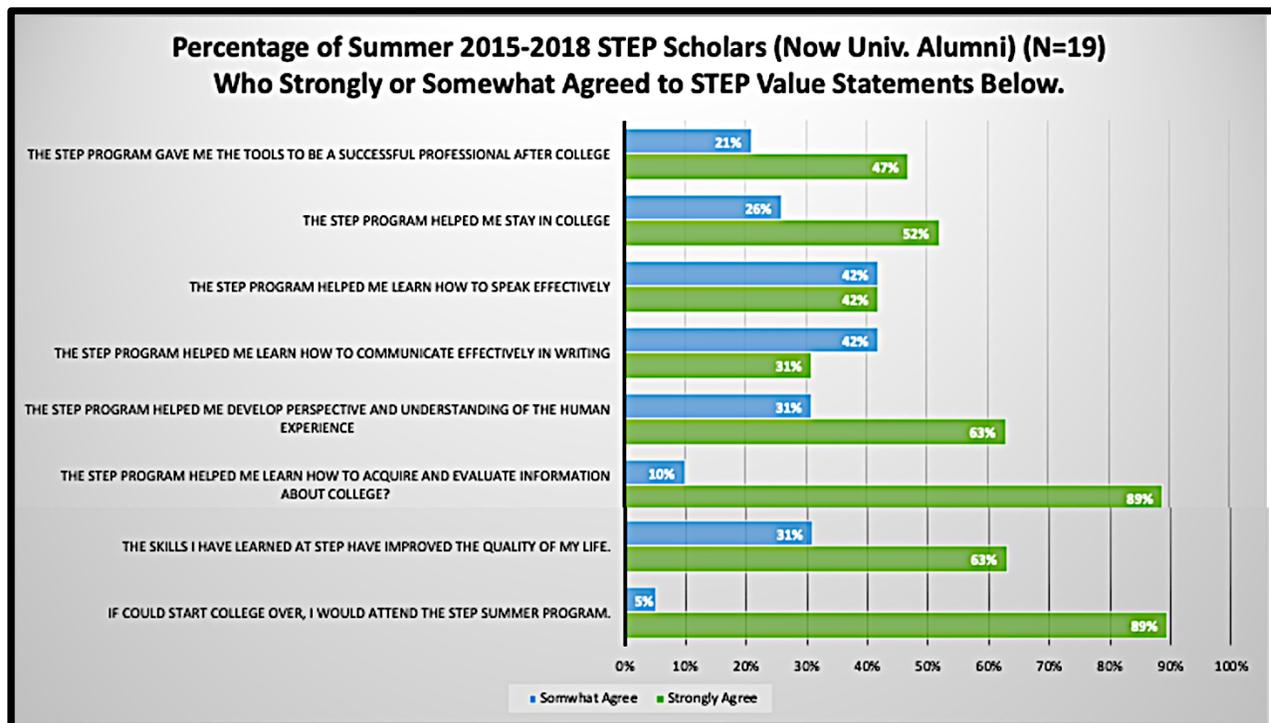
Recruitment and Retention – Research Insights and Practitioner Advice: Identifying Opportunities for Supporting Retention of STEP Scholars

“[STEP] lends greater weight and value to the work ethic of a first-generation student, as they jump through more hurdles. I realize since working in government and completing my master’s degree that a strong work ethic is crucial.” - Former STEP Scholar and Current GMU Alum

“[The STEP] program helped me be more confident in myself and pushed me to try constantly try new things and always to do more than just academics and being active on our campus. And then it is just a giant snowball getting bigger and bigger and bigger. And that symbolizes my confidence in myself.” - STEP Scholar

In striving to make this praxis guide evidence-based, our team also administered surveys to *and* conducted interviews with former STEP Scholars who participated in summer cohorts 2015-2018 and who had since graduated with their bachelor's from our institution. Of note is that 76% of the 19 participants who completed the survey somewhat or strongly agreed that STEP helped them stay in college.

The bar chart below also notes that 47% of those surveyed strongly agreed that STEP gave them tools to succeed after college and 63% strongly agreed that STEP improved their quality of life. Interestingly, though, we can see that there may be work to be done in how STEP supports retention through offering students avenues for improving lifelong skills such as oral and written communication.



So What?

- Focus summer STEP course on oral/written communication and critical thinking/logic/argumentation skills and/or center workshops that support students' development in these areas.
- Think about summer program in a phase-like approach meeting students near-term, mid-term, and long-term goals with respect to engagement and success.
- Leverage enthusiasm of STEP Alum who—by and large would participate in STEP again—to offer current STEP Scholars support and, possibly, supplement the mentorship pool during the full academic year and beyond.

Section IX Curriculum

When the STEP concept began at GMU in the 1990s, participants completed two courses during the summer. The decision was made to reduce the number of courses to one in order to sustain the program, which in turn, allowed more time in the program schedule to build in-depth college preparation skills and co-curricular programming.

The types of courses offered to students have varied depending on who is leading the summer program. For the 2023 cohort, we will offer one course with multiple sections to maintain a smaller student-to-faculty ratio in the context of a recent partnership with first-generation faculty in the Department of Communication. Regardless of the courses selected, all courses are 3 credit hours and chosen as a part of the university core curriculum requirement that supports degree completion, regardless of major. As a part of curriculum support, STEP will include initiatives such as a STEM project mentored by a faculty member and resulting in a conference-like poster presentation.

Following the summer program course, students are enrolled in a University 100 course that is organized through University Studies with the goal of supporting college transition and sense of belonging. The course can be taken for 0 or 1 credit depending on the student's course load. This class allows the cohort to enroll together (separated into two sections), which helps build on the support initiated over the summer.



Curriculum – Research Insights and Practitioner Advice: Identifying Opportunities for Enriching Curriculum

In preparing this document, we analyzed survey and interview responses of STEP Scholars, former Scholars (now GMU alumni), and campus partners to understand how the curriculum (for-credit experience) could be extended or improved. Following, we offer passages from a student and campus partners/faculty about the summer course.

“Taking my first college course in a safe environment with a group of friends allowed me to get a feel for what the rest of my college classes were going to be like.” - STEP Scholar

“I’d love for all [summer course] instructors to get a more complete orientation to STEP and to have a schedule of what students are doing across the entire program.” - STEP Campus Partner and Summer Course Faculty Member

[As an instructor, my favorite part of STEP was...] “Watching students get excited about writing-or at least talking to each other about their writing.” - STEP Campus Partner and Summer Course Faculty Member

So What?

- Make the summer course experience as realistic as possible with respect to expectations, learning outcomes, accountability, time requirements, etc. in order to prepare students for the actual demands of the academic term. Be clear with students that carrying additional credits and managing more assignments will look and feel differently than the summer experience.
- Work with students to establish a study and course management plan for the academic year *during* the summer program so that students are aware of library spaces, learning services, campus maps that outline between-class walking times, and other supports.
- Collaborate closely with summer course faculty to ensure that students' summer co-curricular involvements are known to them in an effort to limit confusion and conflict with other summer bridge programmatic requirements.

Section X Co-Curricular Programming and Social Engagement

The summer component of STEP is the most involved component of the program offering students a rich experience that mirrors the academic term plus substantial scaffolding. It is divided into six weeks, each with a developmental theme, and all the workshops and informal activities are designed to contribute toward the theme for the week. Each week also contains one well-being session and an excursion.



Each day of the summer program, the students begin by quickly checking in with their mentors as a student group (“pod”) and enjoying breakfast, after which they attend the credit-bearing class. After the class, students have time for lunch and leisure. Most afternoons, students are provided with a workshop or information session by a university partner, which may or may not be followed by a mentor-led hands-on activity to reinforce the workshop's contents. After the workshop, students have dinner and a study hall, which is mandatory at the start of the program and becomes optional later, so the students get used to the time management required to succeed in college. The students have an optional check-in with their mentors before bedtime, and the curfew is enforced so they can get the restorative sleep they need to be successful.

The daily workshops are a product of the collaboration between the First Gen+ Center and campus partners. The program staff reaches out to all relevant departments and administrators to give units and folks an opportunity to engage with first-generation college students, to share the services they provide, and to elaborate on how students can get involved and benefit from their involvement. Also, information sessions are organized to ensure students are aware of the services and departments that exist on campus to support their success. The workshop topics include leadership, financial aid, health and well-being, academic success, and research/scholarship.

Study hall is a designated space in which students can complete assignments and projects in an effort to keep up with the academic requirements. Consistent academic success ensures less stress and creates structure for students to participate in co-curricular and extracurricular activities without guilt.

In concert with academics and support workshops, STEP offers students an opportunity to engage meaningfully with each other via excursions and field trips focused on community, connection, and recreation.

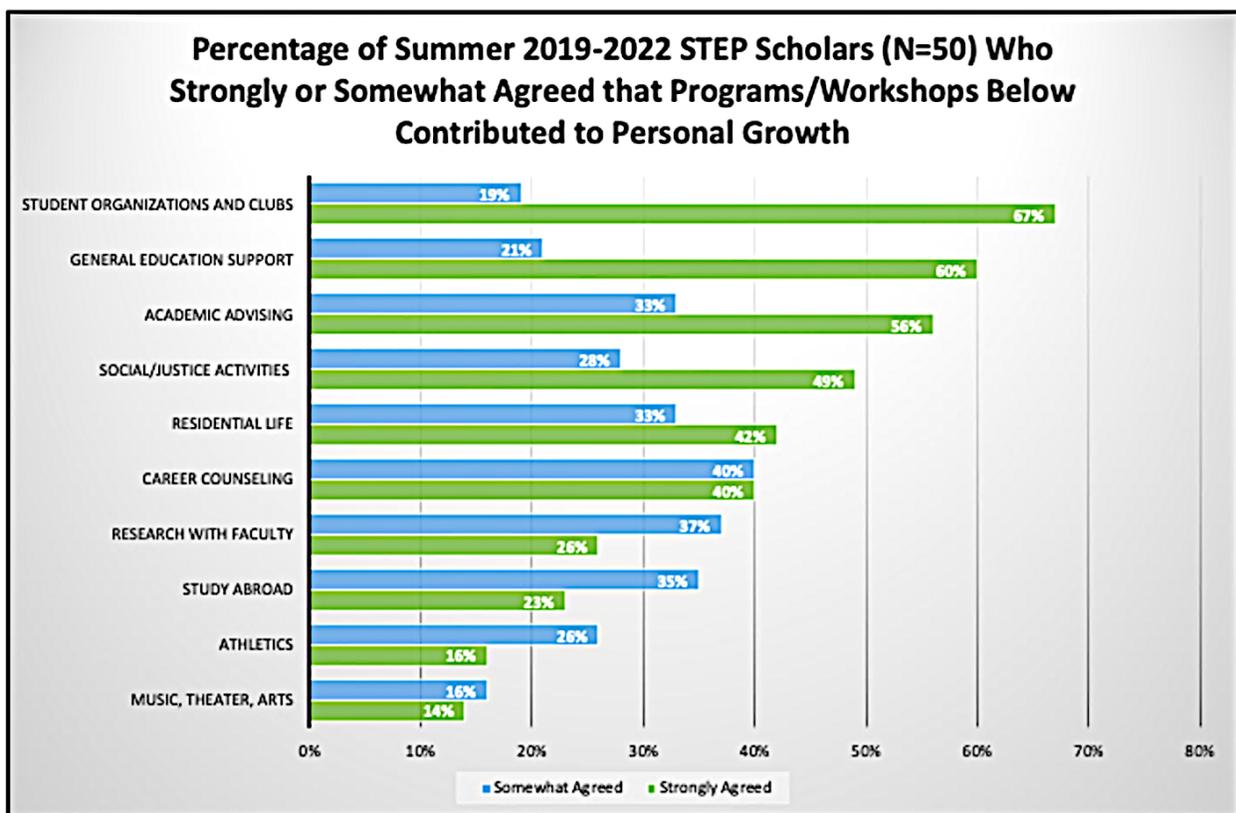


Co-Curricular Engagement – Research Insights and Practitioner Advice: Identifying Impactful Co-Curricular Programming for STEP Scholars

“I come from poverty, and I fear that I would be held back in life trying to support my family, which had happened with my two older siblings. STEP let me know that college is an option for my life even if it seems like I am creating distance from my family, it is a must for the better of all of us. They also let me know no matter in life education or no education, success or no, it is hard, so take the chance and commit.” - STEP Scholar

As foundation for this praxis guide, our team administered surveys to and conducted interviews with STEP Scholars who participated in summer cohorts 2019-2022 at our institution. From the surveys of 50 participants, a good deal was learned about the types of co-curricular programs that are most helpful to students as they complete the summer program and navigate the first semester of college.

The bar chart below indicates that programs which informed students about university organizations, clubs, and opportunities for engagement *most* contributed to their sense of personal growth—followed by general education support and academic advising. Interestingly, few of the Scholars surveyed offered that co-curricular programs focused on music, theater or arts, athletics, or study abroad contributed to personal growth.



So What?

- Provide fewer, but more meaningful co-curricular workshops. Consider what is most essential in the first, vulnerable semesters of college life (e.g., building community with other students and demystifying academic expectations).
- Utilize follow up sessions during the first semester to introduce students to a larger breadth of campus experiences and opportunities, particularly, experiences that speak to diversity, equity, inclusion, and belonging on campus.

Section XI Maintaining Data

Due to the state-funded and university-funded nature of STEP, the ongoing maintenance of data and reporting is crucial to operations. Specific trends, such as the retention rate for STEP Scholars versus the general GMU student body help to highlight the program’s success and continued importance. Similarly, attending to the demographic data and cohort GPA also provides insight into the success of first-generation students involved in the program.

To measure the academic progress of the students participating in the program, mid-term grades and end of semester grades are collected to identify students who need additional academic, financial, and social support. The end of summer GPA cohort average is also announced during the summer program closing reception as a point of celebration - as it is always a time of much excitement for the students, mentors, and families in attendance.

As a part of tracking trends and supporting various institution-level and division-wide grant applications, the cohort demographics, which include number of participants over time, first-generation identity, socioeconomic status, self-reported gender identity, and racial and ethnic identity are analyzed. Below is a sample of demographics compiled since 2014 that provide context about aspects of student identities for those who participated in the six-week summer program.

Cohort Demographics (2014-2023) *2020 cohort – COVID-19/fully virtual

STEP Cohort	Total # of Participants	First-Generation	Low-Income	Female	Male	Hispanic/Latino(a)	Black/African Heritage/African	Asian/Pacific Islander	Middle/North African/South Asian	Multi-racial	White/Euro-pean
2014 (2014-15)	30	100%	27%	50%	50%	40%	20%	20%	3%	7%	10%
2015 (2015-16)	30	100%	Not Recorded	60%	40%	44%	20%	13%	13%	3%	7%
2016 (2016-17)	30	100%	60%	50%	50%	27%	20%	13%	10%	17%	13%
2017 (2017-18)	30	100%	57%	53%	47%	27%	23%	27%	0%	13%	10%
2018 (2018-19)	35	100%	Not Recorded	64%	36%	44%	14%	11%	6%	22%	3%
2019 (2019-20)	31	100%	53%	62%	38%	41%	15%	23%	9%	9%	3%
2020 (2020-21) *	56	100%	71%	66%	34%	39%	14%	25%	11%	9%	2%
2021 (2021-22)	25	100%	72%	52%	48%	48%	12%	8%	20%	8%	4%
2022 (2022-23)	37	100%	95%	57%	43%	43%	14%	22%	8%	5%	8%

To support maintaining data during matriculation and beyond and to support alumni development, a “tag” was developed in partnership with the University Registrar in order to track, support, and celebrate student success during and beyond enrollment. This allows success coaches and university officials to note the progression of Scholars.



**Maintaining Data– Research Insights and Practitioner Advice:
Develop Systems and Schedules for Data Collection**

Data is important to the monitoring of program trends and opportunities for growth. While discussing data and assessment with students and partners was beyond the scope of our project, discussions among our administrative team and analysis of historical cohort demographics did point to the invaluable element of systematic, scheduled data collection connected to student and partner experience that includes both indirect and direct assessment measures. Providing frequent opportunities to capture anecdotal feedback from participants on their experiences—through surveys, interviews, and journals—is essential to program development.

Importantly, data offers insight into still-underserved student populations—e.g., BIPOC first-generation college students. For example, our demographics table above indicates a decrease in students who self-identify as Black or of African heritage. How, then, can we leverage important findings and flags such as these to make concerted efforts to engage Students of Color across multiple and intersecting identities? Recruitment efforts (e.g., direct marketing, high school counselor outreach) must be intentional and consider systemic issues that counter access for historically underserved students.

Section XII Annotated Bibliography

The following annotated bibliography offers additional scholarly resources with respect to summer bridge programs and first-generation college students. The bibliography is organized to align with project sections. We credit “An Annotated Bibliography on First-Generation College Students: Research From 2008-2019” (Baldwin et al., 2021-NASPA)¹ with providing a significant number of sources below (noted with *).

Summer Bridge Program Contexts and the Student Experience

Arendale, D. R., & Lee, N. L. (2018). Bridge programs. In R. Flippo & T. Bean (Eds), *Handbook of college reading and study strategy research* (3rd ed) (pp. 279-292). Routledge. <https://doi.org/10.4324/9781315629810-20>

- This chapter examines six transition zones: Middle school to high school; High school to the first year of college, this period includes bridge programs during high school before graduation and matriculation in college; Orientation prior to college classes, this includes single-day and extended orientation programs; The first-year experience in college; Transition from community college to four-year college; and Undergraduate college to graduate or professional school.

*DeRosa, E., & Dolby, N. (2014). “I don’t think the university knows me”: Institutional culture and lower-income, first generation college students. *InterActions*, 10(2). Retrieved from <http://escholarship.org/uc/item/0kj6m6r8>

- Using Bourdieu’s (2007) theory of social capital, the researchers constructed a phenomenological study of the common experiences of first-generation students at a Midwestern university. Participants were recruited from campus’s TRIO program.

Grace-Odeleye, B., & Santiago, J. (2019). A review of some diverse models of summer bridge programs for first-generation and at-risk college students. *Administrative Issues Journal: Connecting Education, Practice, and Research*, 9(1), 35-47.

- Many colleges are pursuing innovative alternative approaches for the development of education that aim to accelerate students’ progress in gaining important academic competencies. Summer bridge programs are one such approach. These bridge programs offer underprepared students the opportunity to advance toward college-level coursework during the summer before their freshman year. These summer bridge programs have grown increasingly popular, as a strategy for providing students with the foundational college courses, knowledge and skills required for college success. Many integrated programmatic approaches and resources have been developed to address this issue, including general education freshman courses in reading, writing, peer counseling programs, and upperclassmen and faculty mentoring programs providing students with academic and social support.

¹ <https://firstgen.naspa.org/journal-and-research/an-annotated-bibliography-on-first-generation-college-students-research-from-2008-2019>

Gonzalez Quiroz, A., & Garza, N. R. (2018). Focus on student success: Components for effective summer bridge programs. *Journal of Hispanic Higher Education, 17*(2), 101-111. <https://doi.org/10.1177/1538192717753988>

- Using research focused on best practices, focus group information, and data analytics, the Title V: Focus on Student Success (FOSS) Grant created a model for the development, implementation, and evaluation of a summer bridge program. Results included increased academic performance indicators in first-year Hispanic college students. Validation for this work is based on 4 years of data at Laredo Community College, a 2-year public Hispanic Serving Community College along the Texas (United States)–México border.

Understanding Marginalized Students

*Allan, B. A., Garriott, P. O., & Keene, C. N. (2016). Outcomes of social class and classism in first- and continuing-generation college students. *Journal of Counseling Psychology, 63*(4), 487-496. <http://doi.org/10.1037/cou0000160>

- This study sought to examine perceptions of classism to better understand academic and well-being outcomes among first-generation, low-income college students.

*Burgos-Cienfuegos, R., Vasquez-Salgado, Y., Ruedas-Gracia, N., & Greenfield, P. M. (2015). Disparate cultural values and modes of conflict resolution in peer relations: The experience of Latino first-generation college students. *Hispanic Journal of Behavioral Sciences, 37*(3), 365-397. <https://doi.org/10.1177/0739986315591343>

- The study researched Latino students and peer relations in regard to cross-cultural conflicts in a college setting. It examined individualistic values versus collectivist values and the influence of family on Latino students.

*Davenport, B. (2016). *Grit and hope: A year with five Latino students*. University of California Press. <https://doi.org/10.1525/9780520960077>

- This book follows the lives of five Latino students in San Diego, California, who are enrolled in a program called Reality Changers. The program was started by Christopher Yanov in an effort to help young, low-income students get to college.

*Housel, T. H. (Ed.). (2019). *First-generation college student experiences of intersecting marginalities*. Lang. <https://doi.org/10.3726/b14422>

- In this book, the author examines identity and first-generation student status and how the stories of these students can help us explore intersectionalities. The book is divided into sections that include first-generation student and first-generation faculty stories and the marginalization of first-generation students.

*Jehangir, R., Stebleton, M., & Deenanath, V. (2015). An exploration of intersecting identities of first-generation, low income students. National Resource Center.

- Using Bronfenbrenner's developmental ecology theory, this study seeks to understand the multiple and fluid identities of upper division first-generation refugee students at a large, public, predominantly white research institution in Minnesota.

*Kouyoumdjian, C., Guzmán, B. L., Garcia, N. M., & Talavera Bustillos, V. (2017). A community cultural wealth examination of sources of support and challenges among Latino first- and second-generation college students at a Hispanic serving institution. *Journal of Hispanic Higher Education*, 16(1), 61-76.

<https://doi.org/10.1177/1538192715619995>

- This study examined the experiences of first- and second-generation Latino students at an HSI and outlined the support systems and barriers they faced. The goal was to compare first- and second-generation students' ability to navigate higher education, specifically among Latino students—they have the highest dropout rates for ethnic minorities in the country yet also boast higher graduation rates at HSIs.

*Latino, C. A., Stegmann, G., Radunzel, J., Way, J. D., Sanchez, E., & Casillas, A. (2018). Reducing gaps in first-year outcomes between Hispanic first-generation college students and their peers: The role of accelerated learning and financial aid. *Journal of College Student Retention: Research, Theory & Practice*, 22(3), 441-463.

<https://doi.org/10.1177/1521025118768055>

- The purpose of this study was to better understand the role of accelerated learning and financial aid on outcomes of first-generation students who identify as Latinx. The three research questions are (a) How do Hispanic first-generation students and Hispanic non-first-generation students compare in their first-year outcomes (i.e., first-year cumulative GPA and first to-second-year retention)? (b) Do the relationships between financial aid status and first-year outcomes differ by first-generation student status among Hispanic students? and (c) Do the relationships between accelerated learning participation and first-year outcomes differ by first-generation student status among Hispanic students?

*Lehmann, W. (2016). *Influences on working-class students' decisions to go to college. The working classes and higher education: Inequality of access, opportunity and outcome*. Routledge

- It is generally believed that going to college is a disruptive moment for first-generation, working-class students who presumably must separate from their families and class backgrounds to be successful. In this chapter, Lehmann argues that the transition to college for this population is more nuanced and complex.

*McCoy, D. (2014). A phenomenological approach to understanding first-generation college students of color transitions to one “extreme” predominantly White institution. *College Student Affairs Journal*, 32(1), 155-169.

- This study explores how first-generation students of color transition from large, racially diverse areas to an “extreme” White institution. McCoy used Schlossberg’s transition theory as a theoretical framework, which explains how people transition and the ways they connect with systems for support in their time of change, with four factors affecting the individual’s transition: situation, self, support, and strategies.

*Means, D., Clayton, A., Conzelmann, J., Baynes, P., & Umbach, P. (2016). Bounded aspirations: Rural, African American high school students and college access. *The Review of Higher Education*, 39(4), 543-569. <https://doi.org/10.1353/rhe.2016.0035>

- This qualitative case study explores the career and educational aspirations of rural African American high school students in a southeastern state. Most of the participants, who attended the same predominantly African American high school, had little to no family history of college.

*O’Neal, C. R., Espino, M. M., Goldthrite, A., Morin, M. F., Weston, L., Hernandez, P., & Fuhrmann, A. (2016). Grit under duress: Stress, strengths, and academic success among non-citizen and citizen Latina/o first-generation college students. *Hispanic Journal of Behavioral Sciences*, 38(4), 230–238.

<https://doi.org/10.1177/0739986316660775>

- This study looked at noncitizen Latino students compared to a group of first-generation Latino citizens with specific insights into grit, stressors, and GPAs. This mixed-methods study was deployed with interviews with 21 noncitizens and 26 citizens after a quantitative online survey.

*Sarcedo, G. L., Matias, C. E., Montoya, R., & Nishi, N. W. (2015). Dirty dancing with race and class: Microaggressions toward first-generation and low income college students of color. *Journal of Critical Scholarship on Higher Education and Student Affairs*, 2(1), 1-17.

- The authors argue that there are severe emotional consequences for first-generation, low-income students of color who experience “raceclassist” microaggressions. Focusing on a case study, they use both critical race theory and Marxist analyses to explore these intersections and include counter-storytelling as part of the methodology.

*Soria, K. (2015). Welcoming blue-collar scholars into the ivory tower: Developing class-conscious strategies for student success. *Journal of College Student Development*, 57(5), 627-628. <https://doi.org/10.1353/csd.2016.0062>

- Soria examines how social class has an impact on the experiences of working-class college students and how campus leadership can reduce the barriers these students may face. The author’s argument is based on how social class has a complicated set of issues that cannot be resolved solely with financial aid.

Wildhagen, T. (2015). "Not your typical student": The social construction of the "first-generation" college student. *Qualitative Sociology*, 38(3), 285-303. <https://doi.org/10.1007/s11133-015-9308-1>

- This research questioned that categorizing students as first generation is beneficial to students. The author addressed arguments based on interviews and responses from the first-generation college students. FGCS reported that they felt discomfort and uncertainty when their school encouraged them to adopt "middle-class cultural styles of professional attire" for a dinner for first generation students. Based on students' response on the process of internalizing middle-class cultural norms, the author concluded that classifying students as first-generation "mitigates the internal struggle caused by upward social mobility".

Peer Mentor Development

*Connolly, S. (2017). The impact of peer mentoring on the mentors. *Journal of Applied Research in Higher Education*, 9(2), 255-266. <https://doi.org/10.1108/JARHE-10-2015-0078>

- Using a mixed-methods approach, this study focused on determining the impact of the peer mentoring experience on mentors to determine outcomes on student retention and GPA as well as the ways in which the peer mentorship experience influenced perceptions of academic and leadership development.

Luedke, C. L. (2017). Person first, student second: Staff and administrators of color supporting students of color authentically in higher education. *Journal of College Student Development*, 58(1), 37-52. <https://doi.org/10.1353/csd.2017.0002>

- This qualitative study focused on the social capital gained through first-generation students' relationships with mentors of color at an institution. Using Bourdieu's social reproduction theory, Luedke narrowed the focus to the social capital developed in mentoring relations as well as the cultural capital that such relationships can provide.

*Plaskett, S., Bali, D., Nakkula, M. J., & Harris, J. (2018). Peer mentoring to support first-generation low-income college students. *Phi Delta Kappan*, 99(7), 47-51.

- The authors examined a peer mentoring program that pairs first-generation and low-income students based on their academic interests and proximity near each other; additionally, the underclassmen were selected because they were at risk of dropping out of school. Consistent with prior research on this topic, the researchers found that the best matches struck a balance between instrumentality and relationality. That is, the incoming students were most successful when their mentors didn't just help them meet their immediate needs but also bonded with them personally.

*Ramos, B. (2019). Moving from access to success: How first-generation students of color can build resilience in higher education through mentorship. *The Vermont Connection*, 40(1), 55-61. <https://scholarworks.uvm.edu/tvc/vol40/iss1/9>

- The author begins the article by sharing her own story of being a first-generation student of color at a university in California and how she was able to navigate with the help of a mentor.

Institutional Support

*DeRosa, E., & Dolby, N. (2014). "I don't think the university knows me": Institutional culture and lower-income, first-generation college students. *InterActions*, 10(2).

Retrieved from: <http://escholarship.org/uc/item/0kj6m6r8>

- Using Bourdieu's (2007) theory of social capital, the researchers constructed a phenomenological study of the common experiences of first-generation students at a Midwestern university. Participants were recruited from the campus's TRIO program.

*Roggow, M. J. (2014). Improving student performance outcomes and graduation rates through institutional partnerships. *Special Issue: Strengthening Community Colleges Through Institutional Collaborations*, 2014(165), 25-35. <https://doi.org/10.1002/cc.20088>

- This essay discusses a grant-funded program, developed in cooperation with Bronx Community College and the John Jay College of Criminal Justice, to provide educational opportunities in the criminal justice field to first-generation Latinx students.

Schwartz, S. E. O., Kanchewa, S. S., Rhodes, J. E., Gowdy, G., Stark, A. M., Horn, J. P., . . . Spencer, R. (2018). "I'm having a little struggle with this, can you help me out?": Examining impacts and processes of a social capital intervention for first-generation college students. *American Journal of Community Psychology*, 61(1), 166-178.

<https://doi.org/10.1002/ajcp.12206>

- The study employed quasi-experiment and qualitative interviews to highlight the impact of social capital on students by evaluating three essential components of the Connected Scholar Program (CSP) designed to increase social capital. After the CSP, participants of the study reported positive relationships with staff, an increased intention to recruit support and network, and a decreased help-seeking avoidance. The study validated that systematic programs from higher education like CSP can empower FGCS to improve their social capital.

*Wibrowski, C. R., Matthews, W. K., & Kitsantas, A. (2017). The role of a skills learning support program on first-generation college students' self-regulation, motivation, and academic achievement: A longitudinal study. *Journal of College Student Retention: Research, Theory, and Practice*, 19(3), 317-332.

<https://doi.org/10.1177/1521025116629152>

- The authors hypothesized that students who participated in the skills learning support program (SLSP) at a university in the Northeast United States would experience an increase in their academic self-regulation and motivation by the end of the first year. It also was expected that SLSP students would show similar or higher levels of achievement and graduation rates when compared with other freshman students admitted the same year. A total of 876 college freshmen participated in the study; of those, 137 participated in the SLSP, which served as the intervention for this group.

*Winograd, G., & Rust, J. P. (2014). Stigma, awareness of support services, and academic help-seeking among historically underrepresented first-year college students. *Learning Assistance Review*, 19(2), 17-41.

- This study surveyed 95 students at a midsize public 4-year comprehensive college in a small town in the Northeast United States about their experiences participating in support services while in college.

*Zinshteyn, M. (2016, March 13). How to help first generation students succeed. *The Atlantic*. <https://www.theatlantic.com/education/archive/2016/03/how-to-help-first-generation-students-succeed/473502/>

- The article explores the implications of being the first in the family to attend college as it relates to the hidden curriculum. By telling the story of a first-generation student, the author discusses the critical role mentors play in support of these students. The author also explores the work of a scholarship program advisor in advocating and supporting first generation students who are also students of color. The article explores the impact on graduation rates for institutions that commit to building culturally relevant programs that address the needs of first-generation students.

Institution Recruitment and Retention

*Stuber, J. (2016). Normative institutional arrangements and the mobility pathway: How campus-level forces impact first-generation students. In A. Stitch & C. Freie (Eds.), *The working classes and higher education: Inequality of access, opportunity and outcome* (pp. 130-147). Routledge. <https://doi.org/10.4324/9781315696096-16>

- Here, Stuber elaborates on the “campus turn,” or how locally structured environments and campus contexts shape peer dynamics and, in this case, the experience of working-class first-generation students.

*Trevino, N. N., & DeFreitas, S. C. (2014). The relationship between intrinsic motivation and academic achievement for first-generation Latino college students. *Social Psychology of Education*, 17(2), 293-306. <https://doi.org/10.1007/s11218-013-9245-3>

- The authors explored extrinsic versus intrinsic motivation and how the long-term effects of extrinsic motivation can have negative consequences on education.

Curriculum

Antonelli, J., Jones, S., Backscheider Burrige, A., & Hawkins, J. (2020). Understanding the self-regulated learning characteristics of first-generation college students. *Journal of College Student Development*, 61(1), 67-83. <https://doi.org/10.1353/csd.2020.0004>

- The research drew a comparison between FGCSs and non-FGCSs on four categories. It also determined the significance of a required self-regulated learning (SRL) course on students' academic career and analyzed the impact on transfer status of FGCS and non-FGCS. The results of the three tests demonstrated that all groups had a lack of SRL skills. However, there were distinct differences between FGCS and non-FGCS groups. FGCS group scored above the 50th percentiles on

only one category (motivation) while non-FGCS scored above the 50th percentiles on three categories (information processing, motivation, and test-taking strategies).

*Castillo-Montoya, M. (2017). Deepening understanding of prior knowledge: What diverse first-generation college students in the U.S. can teach us. *Teaching in Higher Education*, 22(5), 587-603. <https://doi.org/10.1080/13562517.2016.1273208>

- Drawing on qualitative data collected from observations and semi structured interviews with 18 first-generation students conducted at the beginning, middle, and end of the semester, this study sought to shed light on students' sociopolitical prior knowledge by examining sociopolitical consciousness (SPC) in racially and ethnically diverse students enrolled in introductory sociology courses.

*Conefrey, T. (2017). LEADing the way with ePortfolios in a first-generation learning community. *International Journal of ePortfolio*, 7(2), 161-173.

- The data for this case study were drawn from participants of the LEAD Scholars learning community for first-generation students at Santa Clara University, a private Catholic university. Fifteen students (all first-year and first-generation) gave the researcher access to their ePortfolios.

*Conefrey, T. (2018). Supporting first-generation students' adjustment with high-impact practices. *Journal of College Student Retention: Research, Theory, and Practice*, 23(1), 139-160. <https://doi.org/10.1177/1521025118807402>

- This qualitative case study explores the role of high impact practices in improving engagement and academic outcomes for first-generation students at a private, 4-year college.

*Dika, S. L., & D'Amico, M. M. (2016). Early experiences and integration in the persistence of first-generation college students in STEM and non-STEM majors. *Journal of Research in Science Teaching*, 53(3), 368-383. <https://doi.org/10.1002/tea.21301>

- This article focuses on research on the influence of academic and non-academic variables and aspects of the early college experience on the persistence of first-generation students in STEM and non-STEM majors. The researchers found that GPA in the first semester was a common predictor of persistence across all majors (STEM and non-STEM) of the first-generation student study participants.

*Eddy, S. L., & Hogan, K. A. (2014). Getting under the hood: How and for whom does increasing course structure work? *CBE: Life Sciences Education*, 13(3), 453-468. <https://doi.org/10.1187/cbe.14-03-0050>

- This study addressed the impact of active-learning course-level interventions on student achievement, disaggregated by race/ethnicity and first-generation status, at two different R1 institutions in an introductory biology course. The intervention consisted of three parts: intentional time allocation for student work outside of the class (e.g., preparatory and review assignments), class culture that emphasizes community, and increasing course value by focusing on higher order thinking during class time.

*Horowitz, G. (2019). *Teaching STEM to first-generation college students: A guidebook for faculty and future faculty*. IAP.

- Rather than focusing on redesigning STEM courses, Horowitz addresses “embedding appropriate information about study strategies into [the readers’] classrooms” (p. ix) with the goal of increasing first generation student performance.

*Nunn, L. (2018). *33 simple strategies for faculty: A week-by-week resource for teaching first-year and first-generation students*. Rutgers University Press.

<https://doi.org/10.36019/9780813599519>

- In this book of practical strategies for teaching the author presents easy-to-implement strategies that help first-year and first-generation students understand the expectations of learning in college.

*Scholes Young, M. (2016, May 6). Navigating campus together. *The Atlantic*.

<https://www.theatlantic.com/education/archive/2016/05/how-first-generation-faculty-can-help-first-generation-students-succeed/481617/>

- The author, a faculty member, recalls her campus experiences as a first-generation college student and offers advice for how other faculty can make their classrooms more friendly toward and supportive for first-generation students.

*Shademan, A. R., & Thompson, M. R. (2016). Are college faculty and first-generation, low-income students ready for each other? *Journal of College Student Retention: Research, Theory, and Practice*, 18(2), 194-216.

<https://doi.org/10.1177/1521025115584748>

- This study examined self-perceptions of college readiness among low-income, first-generation students and compared them with the perceptions that community college instructors had of the students’ readiness. Further, the study investigated the types of pedagogies the instructors used to foster “cultural agency” (contributing to cultural capital) among first-generation, low income students in their classes.

*Student Affairs Forum. (2016). *Transforming the first-generation college student experience: 17 strategies for enhancing student success*. Education Advisory Board.

- This four-part essay is meant to provide practitioners with concrete ways to engage the first-generation student experience on a macro level. Topics include empowering students to better navigate the college experience, highlighting positive identity-based messaging, rethinking student involvement, and front-loading career development information and services.

Co-Curricular Programming and Social Engagement

*Demetriou, C., Meece, J., Eaker-Rich, D., & Powell, C. (2017). The activities, roles, and relationships of successful first-generation college students. *Journal of College Student Development*, 58(1), 19-36. <https://doi.org/10.1353/csd.2017.0001>

- This qualitative study explores the experiences and relationships of successful first-generation students. The researchers used Bronfenbrenner’s (1979) 2 bioecological systems theory as a framework to review 100 student cases at a large, public

Research I institution in the Southeast United States. Out of 100, 16 case studies were used for the study. The participants described engaging in multiple roles (student, research assistant, and employee) and activities (student organizations, study abroad, community service, and work duties).

*Hora, M. T., Wolfgram, M., & Chen, Z. (2019). Closing the doors of opportunity: How financial, sociocultural, and institutional barriers intersect to inhibit participation in college internships. WCER Working Paper No. 2019-8. <http://www.wcer.wisc.edu/publications/working-papers>

- This mixed-methods study explored the barriers to internship participation faced by students from five different institutions in different states, including a community college and an HBCU.

*Gist-Mackey, A., Wiley, M. L., & Erba, J. (2018). “You’re doing great. Keep doing what you’re doing”: Socially supportive communication during first-generation college students’ socialization. *Communication Education*, 67(1), 52-72. <https://doi.org/10.1080/03634523.2017.1390590>

- This qualitative study at a large, predominantly White Midwest public university aimed to explore how first-generation students engage in and provide social support during socialization phases. An organizational assimilation model was used to explore first-generation students’ transition to college by temporally analyzing multiple sources and types of socially supportive communication found in interviews with 28 first-generation students in their first semester at a 4-year university.

*Pelco, L. E., Ball, C. T., & Lockeman, K. S. (2014). Student growth from service-learning: A comparison of first-generation and non-first-generation college students. *Journal of Higher Education Outreach and Engagement*, 18(2), 49-65.

- This exploratory study at Virginia Commonwealth University focused on the effect of service-learning courses on student growth.

*Yeh, T. L. (2018). Giving back: Community-based learning and men from low-income, first-generation backgrounds. *Diversity and Democracy*, 21(4), 15-16.

- This article draws upon data from a mixed-methods study of male first-generation students, the majority of whom came from low-income backgrounds.

Retention

*Aymans, S. C., & Kauffeld, S. (2015). To leave or not to leave? Critical factors for university dropout among first-generation students. *Zeitschrift für Hochschulentwicklung*, 10(4), 23-43.

- This study compared first-generation and continuing generation students in Germany to explore factors that contribute to student dropout. The data were collected from online questionnaires administered to students both prior to university entry and during the first semester.

*Azmiti, M., Sumabat-Estrada, G., Cheong, Y., & Covarrubias, R. (2018). "Dropping out is not an option": How educationally resilient first-generation students see the future. *New Directions for Child and Adolescent Development*, 2018(160), 89-100.

<https://doi.org/10.1002/cad.20240>

- In this paper, the researchers examined the challenges and resources that first-generation students encounter as they navigate college, with a specific focus on academic resilience. The research questions included (a) What challenges do first-gen students face in their transition to college? (b) What resources do they use to face those challenges? and (c) What is the link between educational resilience, resources, and persistence to graduation and career goals? Findings were drawn from a 6-year longitudinal study at a public state university in northern California.

*Cataldi, E. F., Bennett, C. T., & Chen, X. (2018). *First generation students: College access, persistence, and post Bachelor's outcomes* (Stats in Brief. NCES 2018-421). National Center for Education Statistics.

- This brief paper on the first-generation student data from the National Center for Education Statistics examines various characteristics of first-generation students, including personal, enrollment, academic, and career.

*Garza, K., Bain, S., & Kupcynski, L. (2014). Resiliency, self-efficacy, and persistence of college seniors in higher education. *Research in Higher Education*, 26.

- This study examined the retention of Hispanic first-generation students by specifically looking at resiliency, self-efficacy, and persistence in their senior year of college since this population is more likely than other ethnic minorities to be first-generation.

Hands, A. (2020). Tapping into the assets of first-generation students during times of transition. *Information and Learning Science*, 121(7/8), 611-618.

<https://doi.org/10.1108/ILS-04-2020-0065>

- The study identified and analyzed six assets of FGCS: reflexivity, optimism, academic resilience, goal-orientation, civil-mindedness, and proactivity. In alignment with Yosso's community cultural wealth (CCW), the author presented five approaches to help FGCS illuminate their assets. Providing easier access to resources by integrating library tutorials into the online course learning management system was the first approach. The other four approaches were having librarians as a part of the advisor team, creating transparent assignments, encouraging reflection, and stimulating civic engagement.

*Ishitani, T. (2016). First-generation students' persistence at four-year institutions. *College and University*, 91(3), 22-32.

- This article focuses on the persistence of first-generation students at 4-year institutions. The study expanded beyond just "enroll" and "not enroll" as measures for dropout rates and focused on period specific effects. Results show that first-generation students tend to withdraw during their second year. The results indicate that institutions can do more to intervene and develop retention-based efforts to help

first-generation students persist; these efforts should be centered around both academic and social integration.

*Pratt, I. S., Harwood, H.B., Cavazos, J.T., & Ditzfeld, C.P., (2019). Should I stay or should I go? Retention in first-generation college students. *Journal of College Student Retention: Research, Theory & Practice*, 21(1), 105-118.
<https://doi.org/10.1177/1521025117690868>

- The purpose of this study was to compare trends in first-generation student retention with the trends found on the campus of a large public university. Data were collected from an online survey distributed to first-year and transfer students. As in previous research, the authors' findings suggest that there are key factors that influence retention for first generation students.

*Radunzel, J. (2018). They may be first but will they last? Retention and transfer behavior of first-generation students. ACT. <https://files.constantcontact.com/36ea01b3201/25bc66cb32dc-4de4-b208-4f1456788100.pdf>

- This study examined the extent to which academic and nonacademic factors explain differences in student retention, transfer, and dropout rates between first-generation students and their continuing-generation peers. These factors include but are not limited to educational goals, financial resources, gender, and race/ethnicity.

*Talusán, L., & Franke, R. (2019). (Un)Fulfilling requirements: Satisfactory academic progress and its impact on first generation, low-income, Asian American students. *Journal of Critical Scholarship on Higher Education and Student Affairs*, 5(1), 15-28.

- In this study, the authors used one-on-one interviews with six students to better understand how Asian American first-generation students navigate the satisfactory academic progress (SAP) process. Asserting that race matters, the research team applied several frameworks, including social and cultural capital, culturally engaging campus environment, and Asian critical race theory.

*Vega, D. (2016). "Why not me?": College enrollment and persistence of high-achieving first-generation Latino college students. *School Psychology Forum*, 10(3), 307-320.

- This qualitative study focuses on the experiences of 10 Latino first-generation students at a Hispanic serving institution in order to highlight their success stories. The purpose of this study was to examine the reasons these students attend college, what motivates them to persist, and how they build the necessary tools to succeed. The main themes covered include academic rigor, support networks, internal motivation, and responsibility as a first-generation student and how all these factors contribute to student success.

*Wilbur, T. G., & Roscigno, V. J. (2016). First-generation disadvantage and college enrollment/completion. *Socius: Sociological Research for a Dynamic World*, 2(16), 1-11. <http://dx.doi.org/10.1177/2378023116664351>

- This study aims to fill in gaps in the sociology literature as it pertains to first-generation students by analyzing several waves of the Educational Longitudinal Study from 2002 to 2012. The researchers used the survey data of 10th graders in 2002 in the first wave; subsequent surveys in 2004, 2006, and 2012 aimed to follow students through high school and beyond. The researchers identified four areas of interest in the survey data: (a) college attendance and completion, (b) socioeconomic and first-generation status, (c) cultural capital and parental involvement, and (d) college experiences and stressors. As a student's socioeconomic status increased, the likelihood of their attending college increased as well.

*Wittner, B., Powazny, S., & Kauffield, S. (2019). Supporting Rita: A social cognitive approach to (first-generation) students' retention. *Journal of College Student Retention: Research, Theory & Practice*, 62(2):253-63. <https://doi.org/10.1177%2F1521025119882358>

- Using social cognitive theory, this study tests whether social support is really more important to first-generation students than non-first-generation students in Germany. The researchers also tested whether social support has a buffering effect on the decision to drop out for first-generation students but not for non-first-generation students. They used data from an ongoing longitudinal study in a project, which aims to improve the quality of teaching in higher education.



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