

INCREASING FIRST-GENERATION STUDENTS' ACCESS TO HIGH-IMPACT PRACTICES

A disquisition presented to the faculty of the
Graduate School of Western Carolina University in
partial fulfillment of the requirements for the degree
of Doctor of Education in Educational Leadership

By

Theresa Ann Cruz Paul

Chair: Dr. Emily Virtue,
Assistant Professor of Educational Research

Committee Members:
Dr. Kofi Lomotey, Professor, Educational Leadership, WCU
Mr. Ken O'Donnell, Vice Provost, CSUDH
Dr. Heidi Dent, Assistant Professor of Marketing, WCU

March 2023

@2023 by Theresa Cruz Paul

ACKNOWLEDGEMENTS

I would like to thank my committee members and my design team members for their support and encouragement. In particular, I would like to thank Dr. Emily Virtue, Mr. Ken O'Donnell, Dr. Kofi Lomotey, and Dr. Heidi Dent. Each of you exemplifies grace, courage, poise, and curiosity in your lives as teachers, mentors, and university administrators. Your leadership has inspired me to seek new challenges and has been critical to my development as a future university administrator.

I also have immense gratitude for my mentor, Dr. Carol Burton, who has encouraged me to pursue -- and supported me throughout -- this endeavor. Your guidance and leadership continue to be a driving model for my own work, and I cannot thank you enough for your support.

I want to thank my family, whose tireless contributions have made this project possible. In particular, my husband, who works endlessly to support our family and contributes to my personal and professional development. My daughter, who drives me to do my best and challenges me to expand my thinking, and my mother, whose endless love and support are unwavering.

Finally, I would like to dedicate this disquisition in memory of my father, whose good humor, wonder, and care helped me to pursue my continued education as a first-generation college student.

TABLE OF CONTENTS

List of Tables	iv
List of Figures	v
Abstract	vi
Introduction.....	1
Literature Review.....	2
Deficit Thinking	11
Intersectionality, Habitus, and Cultural Capital	13
The Local Context.....	16
Theory of Improvement	22
Positionality Statement.....	25
Improvement Initiative.....	29
Formative and Summative Evaluation.....	32
Formative Assessment.....	34
Student Marketing Initiative	34
Advisor Marketing Initiative	40
Summative Assessment.....	48
Recommendations for Leadership Practice and Continued Scholarship	52
Student Marketing.....	53
Faculty Marketing	54
Leadership Implications	54
Limitations	57
Implications for Future Research	58
Conclusion	59
References.....	63
Appendices.....	76
Appendix A: Sample FGS Student Email	76
Appendix B: Pre & Post-Revision of HIPs Website.....	77
Appendix C: HIP Study Survey	78
Appendix D: Advisor Pre-and Post-Test Survey	79

LIST OF TABLES

Table 1. Percent Participation in HIPs by Institutional and First-Generation Status	9
Table 2. Percentage of FGS Involvement at WCU	21
Table 3. Design Team Membership, Credentials, and Responsibilities	27
Table 4. Measures for Improvement Initiative	35
Table 5. Student Email Marketing Campaign	38
Table 6. Web Traffic for HIPs Website	39
Table 7. How Students Heard About HIP	41
Table 8. Central Tendencies for Subscales and Scales	46
Table 9. Group Statistics Faculty/Staff	47
Table 10. Independent Samples t-test for Faculty/Staff	47
Table 11. Group Statistics FG Advisors at UG Level	48
Table 12. Independent Samples t-test for FG Advisors	48
Table 13. Paired Samples Statistics	49
Table 14. Paired Samples t-test	50
Table 15. FGS and Non-FGS Involvement in HIPs	52
Table 16. GPA Paired Samples Statistics	54
Table 17. GPA Paired Samples t-test	54

LIST OF FIGURES

Figure 1. Gains for FGS in HIPs	6
Figure 2. First-Generation Self-Reported Gains	7
Figure 3. Casual Map of FGS involvement in HIPs	10
Figure 4. Deficit-Minded Explanations of Equity Gaps and Equity-Minded Questions	13
Figure 5. HIP Reporting Structure at WCU	18
Figure 6. Driver Diagram of FGS Access to HIPs	25
Figure 7. Implementation Timeline for Improvement Initiative	32
Figure A1. Sample FGS Student Email	78
Figure B1. Pre & Post-Test Revision of HIPS Website	79
Figure C1. HIP Student Survey	80
Figure D1. Advisor Pre-and Post-Test Survey	81

ABSTRACT

INCREASING HIP ACCESS TO FIRST-GENERATION COLLEGE STUDENTS

Theresa Ann Cruz Paul, Ed.D.

Western Carolina University (March 13, 2023)

Director: Dr. Emily Virtue

The lack of first-generation student (FGS) involvement in high-impact practices (HIPs) is critical in addressing college students' social mobility and economic equity in the 21st century.

Participation in HIPs can lead to academic, personal, and professional gains resulting in more competitive applications for future employment and graduate schools. At Western Carolina University, HIPs are disorganized and scattered, leading to confusion for students and faculty members about the process. Compounding this issue is deficit thinking and unconscious bias about FGS that advisors hold, which can affect the rates at which advisors refer FGS to be involved in HIPs. To address this issue, I implemented a video and marketing intervention for faculty and staff advisors to address their role in supporting FGS in HIPs and how bias remediation strategies address unconscious bias and deficit thinking. In addition, I created targeted marketing for FGS to demystify the HIP process. The success of this initiative was measured through HIP involvement rates, click/engagement/website traffic rates, video engagement rates, and a faculty pre-and post-test survey. Overall findings indicated that the marketing for students increased first-generation and continuing-generation participation in HIPs. The video marketing for advisors resulted in a statistically significant increase in the knowledge about HIPs and their likelihood of referring students to HIPs. However, the findings were insignificant in lowering FGS bias or increasing bias awareness amongst faculty members.

The project aimed to increase FGS involvement in HIPs by 10% with the long-term goal of having a proportional representation of FGS in HIPs at Western Carolina University. This goal was not met. However, there was growth in the participation of FGS for all HIPs indicating that the change initiatives were having a positive effect. The findings from this project are helpful to other universities seeking to increase access to HIPs for FGS.

Introduction

Across the nation, first-generation college students (FGS) attend classes and engage in colleges and universities to develop academic insight and gain valuable skills that will make them successful in their futures. Along with the involvement in classroom learning comes the co-curricular involvement obtained through activities like internships, service-learning, undergraduate research, and study abroad. However, many FGS are not participating in these activities at the same level as their peers. They miss out on these practices' significant academic and personal gains (Finley and McNair, 2013; Kuh, 2008).

This project, which focuses on FGS, is a disquisition, a unique cumulative experience for doctoral candidates in education who are leaders (practitioners) in their field. Compared to a traditional Ph.D., this project utilizes "existing research to solve an educational problem" (Shulman et al., 2006, p. 26). Lomotey (2018) describes a disquisition as "a formal, problem-based discourse or treatise in which a problem of practice is identified, described, analyzed and addressed in-depth, including methods and strategies used to bring about change and to assess whether the change is an improvement" (p. 4). In my disquisition, I aimed to address the disparity of high-impact practice (HIP) involvement for FGS by encouraging participation in four specific activities, internships, service-learning, study abroad, and undergraduate research. I implemented a video outreach strategy targeted to faculty and staff advisors to highlight the inequities these students face, their role in supporting students in their involvement, and mitigating bias and deficit thinking. Also included in this project was a targeted marketing approach highlighting participation in the HIPs process designed for FGS.

Improvement Science methodology offers a framework for this project and guides the identification and assessment of improvement initiatives. Improvement science ascertains what works, for whom, and in what context to initiate small changes resulting in more extensive systemic transformation (Bryk et al., 2017; Cohen-Vogel et al., 2015; Crow et al., 2019; Langley et al., 2009). In this project, I utilized instruments like fishbone diagrams, driver diagrams, run charts, and plan/do/study/act (PDSA) cycles to explore this problem of practice and select and evaluate solutions.

The lens of equity and access is paramount to this entire project, and at the crux of the conversation is social justice. FGS face significant challenges in higher education, including involvement in HIPs. Having less access to these opportunities inhibits the ability of FGS to obtain academic, personal, and professional gains (Finley & McNair, 2013; Kuh, 2008); impacts their level of retention and persistence in education (Demetriou et al., 2017; Provencher & Kassel, 2019); and influences potential career outcomes for these students (NACE, 2019a; NACE, 2019b; Miller et al., 2018). The long-term effects on the generational social mobility of these students and their families are a direct outcome of the lack of access to HIPs.

Practitioners need to understand the impact of HIPs on students and the special considerations for the FGS population. In the following section, I explore existing research surrounding the demographics of FGS, their involvement in HIPs, and the challenges these students face.

Literature Review

The Center for FGS Success (2021) defines first-generation college students as those whose parents do not have a bachelor's degree. Often these students are more likely to be from minoritized groups, be students of color, and are older than their continuing-generation

counterparts (Engle & Tinto, 2008; Redford & Hoyer, 2017; RTI International, 2019a; U.S. Department of Education, 2019). Of the FGS attending college in 2011, 34% were over age 30, compared to 17% of students whose parents had a bachelor's degree (Cataldi et al., 2018). These students are more often non-native English speakers (Redford & Hoyer, 2017) and have more dependents than their peers (RTI International, 2019a).

According to the National Center for Education Statistics, 58% of 2002 high school sophomores who subsequently enrolled in postsecondary education were either the first in their families to go to college or had a parent with at least some college experience but did not have a bachelor's degree (Redford & Hoyer, 2017). According to the Student Affairs Administrators in Higher Education (NASPA) Center for FGS Success, 42% of 2015-2016 bachelor's degree recipients were first-generation college students (RTI International, 2019a). FGS are often more likely to enroll part-time, attend two-year institutions, enroll in exclusively online programs, and attend Minority-Serving Institutions (MSI) (Engle & Tinto, 2008; RTI International 2019b; U.S. Department of Education, 2019). Enrolling part-time or in online programs often results in higher rates of non-completion, as does enrollment in two-year institutions compared to four-year institutions. FGS often struggle to complete their degrees and are likelier to drop out than continuing-generation students (Fry, 2021; RTI International, 2019b; U.S. Department of Education, 2019).

With these characteristics, FGS often require additional financial assistance, take out more student loans, earn less than their peers, and come from families with lower parental incomes. According to a Pell Institute study, low-income FGS' mean unmet financial need was almost \$6,000, representing half of their median annual income (Engle & Tinto, 2008; The Pell Institute, 2019). In fact, the median family income for FGS at two- and four-year institutions was

about \$40,000 compared to more than \$99,000 for continuing-generation students (Redford & Hoyer, 2017). FGS also incurred more student loan debt, with 65% of FGS owing \$25,000 or more compared to only 57% of continuing-generation students (Fry, 2021). Conversely, continuing-generation students had twice as much wealth -- the value of all assets minus any outstanding debts -- than FGS households (Fry, 2021). This additional revenue makes it easier for continuing-generation households to supply access and opportunity for their students above and beyond what is available to FGS.

FGS are less involved in university services and activities than continuing-generation students. For example, they are less likely to utilize academic advising, career, academic support, and health services (RTI International, 2019b). These students are less involved in co-curricular activities like internships, study abroad, and undergraduate research (Finley & McNair, 2013; Kuh, 2008) and are less likely to have a mentor, particularly a faculty member, who encourages them to achieve their goals. FGS reported having a mentor 61% and minority students 47% compared to 72% of white students (Strada-Gallup, 2018). FGS are less involved in college and the co-curricular activities it entails. These students work more, have family responsibilities, and do not have the same support from mentors or parents to become involved in these activities.

Participation in university activities allows students to apply learning to real-world problems and contexts. Researchers have linked student engagement to positive outcomes such as student-staff contact, respect for diverse learning styles, cooperation among students, and active learning (Astin, 1996, 1997; Braxton et al., 2000; Kuh & Hu, 2001; Pascarella & Terenzini, 2005). The Association of American Colleges and Universities (AAC&U) has defined a set of specific activities as "HIPs (HIPs)" (Kuh, 2008). The practices identified by AAC&U include educational activities that are particularly beneficial because they allow students to

interact with faculty and peers over extended periods. These activities also include consistent and substantive feedback on students' performance while allowing them to synthesize what they have learned in a real-world application. HIPs often offer students options to learn about themselves, what they value, and what skills they can provide to future employers and graduate programs. These practices include first-year seminars, learning communities, project-based learning, undergraduate research, service-learning, internships, common intellectual experiences, writing-intensive courses, and study abroad.

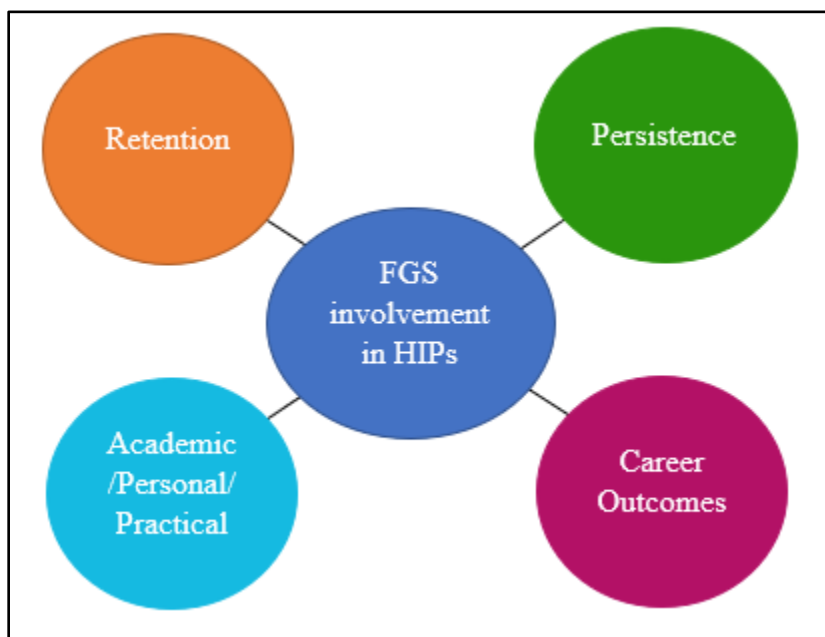
Students involved in HIPs can apply their learning to real-world environments. As a result, these practices increase retention and persistence, lead to academic, personal, and practical gains, and provide better career outcomes for students (Demetriou et al., 2017; Finley & McNair, 2013; Kilgo et al., 2015; Kuh, 2008; Miller et al., 2018; O'Donnell et al., 2015; Provencher & Kassel, 2019). Without equitable access to these opportunities, FGS miss out on the associated gains (Figure 1).

The benefits of HIPs for FGS are essential to future success. Demetriou et al. (2017) found that FGS who succeeded in reaching graduation participated in activities tied to their curriculum, including research with a faculty member, study abroad, and service-learning. These findings were similar to those of Provencher & Kassel (2019), who looked at first year and sophomore retention and found that HIP participation was a significant predictor of first-and second-year retention.

Involvement in HIPs has also supported a positive perception of the campus environment (Zhao & Kuh, 2004; NSSE, 2020). Given FGS' difficulties persisting to graduation, involvement in HIPs could significantly affect persistence and retention. In his initial and subsequent studies, Kuh (2008) noted that participation in HIPs can lead to academic, personal, and professional

Figure 1

Gains for FGS in HIPs



gains. Historically underrepresented groups in higher education, including FGS, are most likely to achieve these gains (Figure 2). These studies also found that FGS were less likely to participate in internships, study abroad, and research with faculty members. Finley and McNair (2013) found that FGS who had participated in HIPs reported gains in learning, practical competence, and personal development more than students who had not. Their findings indicate that, for FGS, understanding their learning and self-reported growth and development helps provide an "equity effect" (Finley & McNair, 2013, p.19). They reduce gaps in learning and promote connections with their educational environment.

Along with academic achievement and learning gains, HIPs can potentially impact early career outcomes for students. Miller et al. (2018) explored HIP involvement, seniors' post-graduation plans, and early job attainment. For students who secured employment by graduation, the authors found a significant correlation between HIP involvement and having a job or

Figure 2

First-Generation Self-Reported Gains

FIRST GENERATION

	Deep Learning	Gains General	Gains Personal	Gains Practical
<i>First-Year</i>				
Learning Communities	+++	++	+++	++
Service Learning	+++	++	+++	++
<i>Senior</i>				
Study Abroad	++	+	++	
Student-Faculty Research	+++	++	+++	++
Internship	++	++	++	++
Service Learning	+++	++	+++	++
Senior Culminating Experience	+++	++	++	++

+ p < .001, ++ p < .001 & Unstd B > .10, +++ p < .001 & Unstd B > .30

From "*High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*," by G. D. Kuh, 2008, Copyright 2008 by the Association of American Colleges and Universities.

enrolling in graduate school at the time of graduation. Certain HIPs also may be more closely related to career outcomes than others. For example, internships can lead to an over 50% conversion rate to full-time employment (NACE, 2019a). FGS accounted for 25% of students who had never interned before and just 19% of students who participated in paid internships. Interestingly, students with a paid internship experience received nearly 50% more job offers than those with an unpaid internship or no internship at all (NACE, 2019b). Findings suggest that participation in these activities can directly affect student career outcomes.

In another study, Wolniak & Engberg (2019) defined career outcomes as earnings, job satisfaction, job commitment, and learning/challenge within the position and found that broad HIP involvement does not affect career outcomes. However, they did discover that internships and study abroad both appear to lead to higher-paying jobs, and students who participate in

undergraduate research will often pursue an advanced degree. Schalewski (2020) also found that internships, research, and service-learning reproduce social inequalities, especially in career outcomes. However, he determined that HIPs support upper and middle-class students but could be doing more for low-income students. The career outcomes literature is relatively new, and each study defines career outcomes differently, including earnings and job satisfaction (Wolniak & Engberg, 2019), obtaining employment at the time of graduation (Miller et al., 2018), job offers after involvement (NACE, 2019a; NACE 2019b), and early career earnings and graduate degree attainment (Schalewski, 2020). Even though these findings do not undoubtedly support positive career outcomes for participation in HIPs, it is essential to note that they don't discount it either. Given the economic inequalities facing FGS, it would be crucial to encourage them to participate in the potential economic and career benefits that HIPs may provide.

The potential gains outlined make it clear more FGS should be involved in HIPs, yet they are not as engaged as their peers. FGS have traditionally been less involved in internships, study abroad, and undergraduate research. Kuh (2008) reported less involvement by FGS in study abroad, undergraduate research, and internships and the same level of participation in service-learning (Table 1). Finley and McNair (2013) found similar experiences for FGS in that the average number of HIPs they participated in (1.24) was less than non-FGS (1.45). In the NSSE 2020 Institutional Report, first-generation seniors' HIPs participation lagged behind peers, with ~1 in 5 FGS and 1 in 8 non-FGS seniors participating in zero HIPs and 54% FGS, compared to 67% non-FGS seniors completing two HIPs. This trend has been found consistently from 2015 through 2020. Non-FGS seniors were also more likely to participate in research with a faculty member (1.5x), internships (1.3), and study abroad (2.7) than FGS seniors. However, FGS

seniors were more likely than non-FGS seniors to participate in service-learning, and these patterns have been consistent since 2007.

Table 1

Percent Participation in High-Impact Activities by Institutional and First-Generation Status

First-Year Students		Senior Students			
	Service Learning	Research with Faculty	Study Abroad	Service Learning	Internship
First-Gen - NO	37%	22%	19%	46%	57%
First-Gen - YES	35%	16%	9%	46%	48%

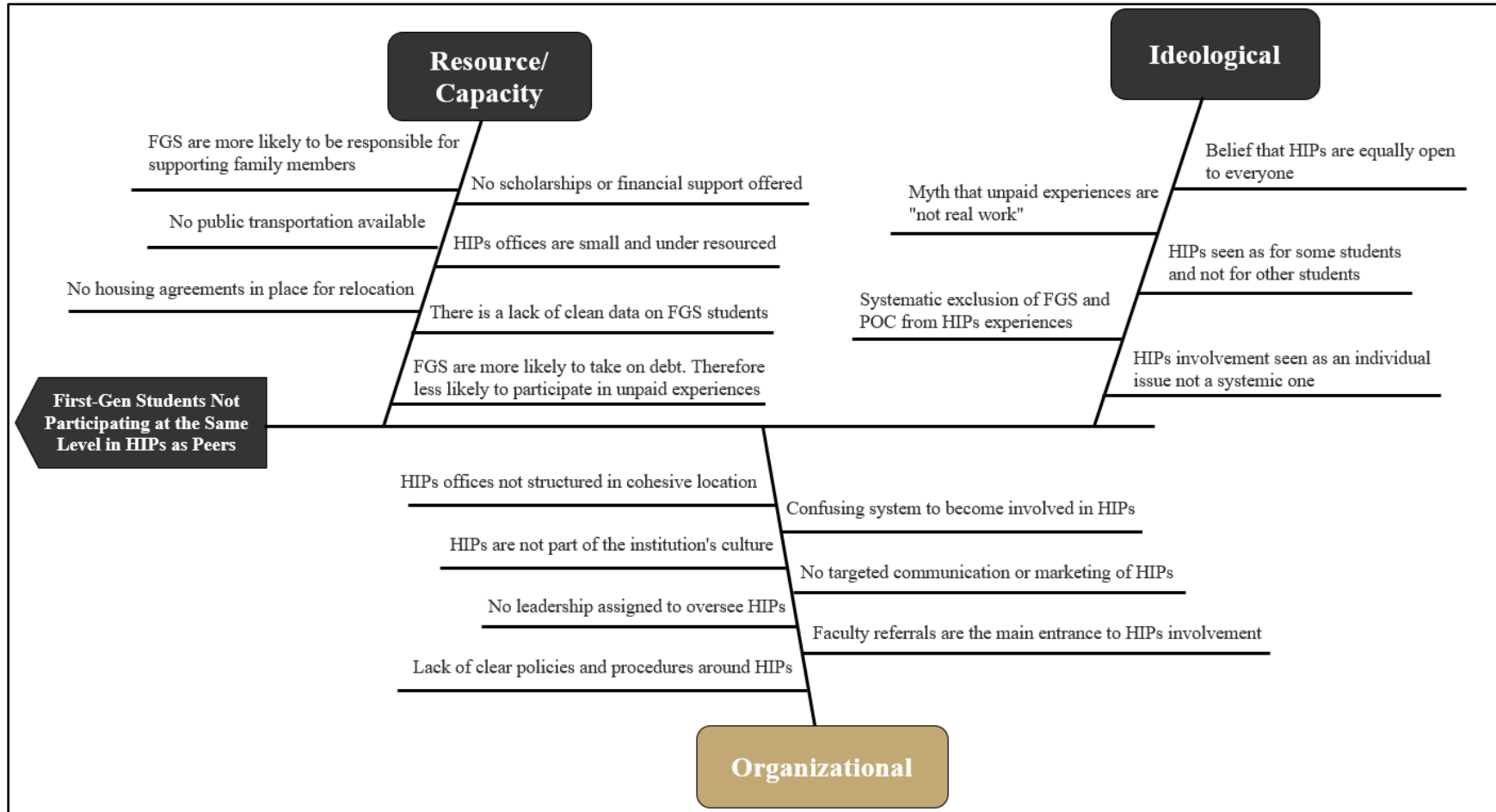
From "*High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*," by G. D. Kuh, 2008, Copyright 2008 by the Association of American Colleges and Universities.

So why haven't FGS been as involved in HIPs as their peers? What barriers do these students face in particular, and how can we make changes that will impact them as higher education professionals? The first step is to delve into the structural challenges that block these students from participating. In creating a causal map of these underlying reasons (Figure 3), it is clear that there are many. Challenges range from resource constraints and ideological differences to historical discrimination and organizational barriers. Each section of this fishbone diagram identifies structural barriers that impact FGS involvement in HIPS and provides a roadmap to respond, redress, and sustain a viable solution.

Monetary and resource constraints continue to be a concern for many FGS. FGS take out loans to pay for college and have higher unmet needs than their counterparts (Chan et al., 2020; Engle & Tinto, 2008). They often come from homes of lower socioeconomic statuses, indicating a lack of financial resources to support participation in potentially expensive HIPs (Engle & Tinto, 2008; Fry, 2021; Furquim et al., 2017; Redford & Hoyer, 2017; RTI International,

Figure 3

Causal Map of FGS involvement in HIPs



2019a). Many FGS have a job while in school (66%), are employed off-campus, and work more hours than continuing-generation students (RTI International, 2019c). Considering that many HIPs require students to forego paid employment to participate in activities like study abroad, service-learning, undergraduate research, and internships, it is not surprising that FGS struggle to be involved.

Deficit Thinking

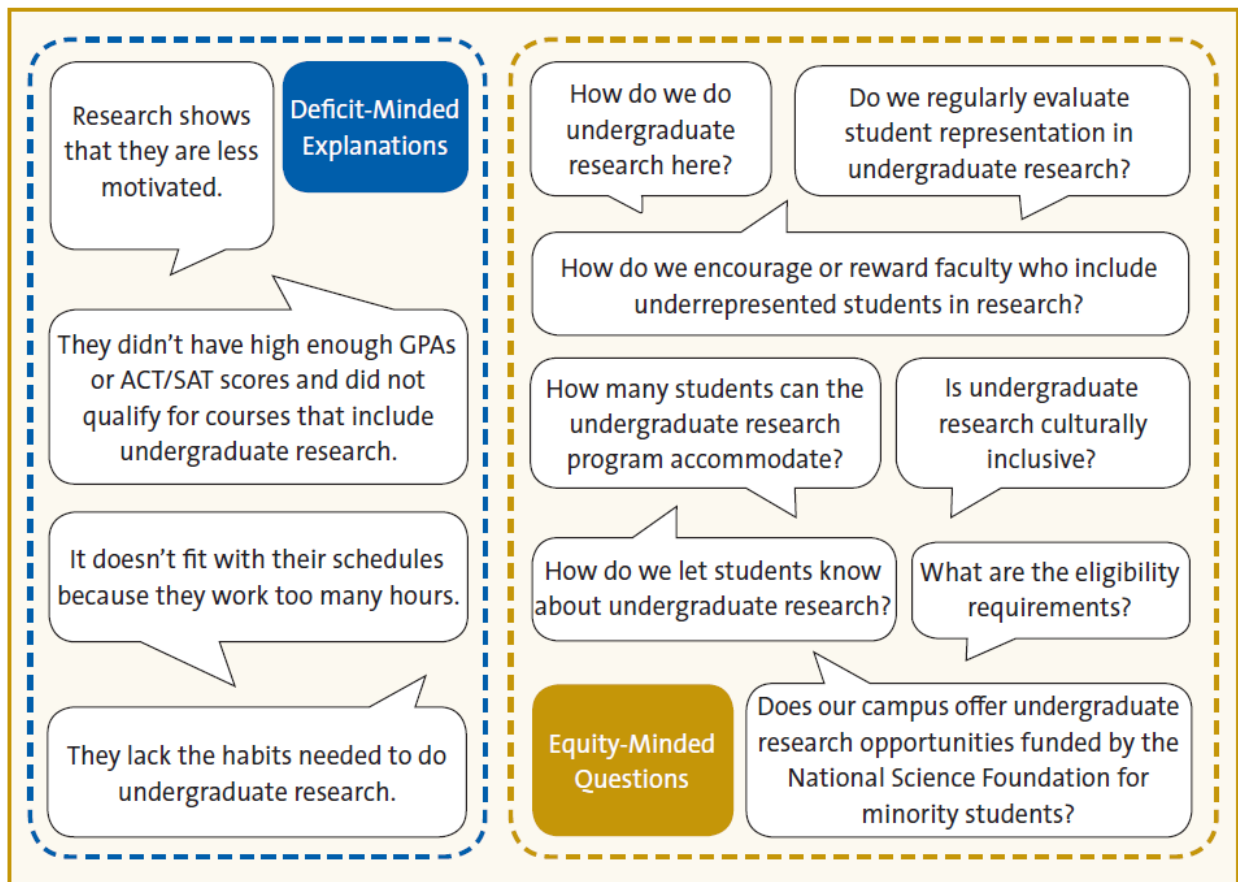
On the surface, HIPs appear to be equally open to all students, providing the same opportunities for those who participate. So, if FGS are not participating in these activities, it must be due to their lack of effort and talent. This belief that society offers enough opportunity and mobility for anyone, no matter their social position at birth, to use their skill and effort to rise to the top is known as meritocracy and is integrated into American society (Littler, 2017). The problems with this belief are that (1) it legitimizes a competitive system where some succeed and some are left behind (Hickman, 2009); (2) it assumes that talent and intelligence are innate (Young, 1994); (3) it ignores the fact that climbing the ladder is easier for some but not others (Littler, 2017); (4) it idealizes upper-middle-class values as the norm (Mijs, 2021); and (5) it serves as a myth to expand economic and social inequalities (McNamee & Miller, 2009). Meritocratic beliefs hide that minimal involvement by FGS in HIPs is a structural barrier by focusing on the FGS and their perceived deficiencies.

We often interpret our interactions through our values and, sometimes, our unconscious biases (Greenwald & Banaji, 1995). This unconscious or implicit bias is challenging to identify and difficult to control. In this context, unconscious bias plays a part in faculty and staff's beliefs about FGS and how successful they may or may not be in their involvement in HIPs. It is possible that because of these beliefs, faculty may overlook FGS for opportunities that they may

not do with continuing-generation students. Placing implicit bias into action often results in deficit thinking about students and blaming the victim when problems arise. Faculty may believe that FGS are not involved in HIPs because of their individual or community traits (Bruton & Robles-Piña, 2009; Gorski, 2016; Haggis, 2006; McKay & Devlin, 2016). For example, we might say that FGS are not involved because they don't value the activities, dedicate the time needed, or have the resources (Figure 4). When deficit beliefs are held, many solutions in the structure surrounding the problem are not investigated.

Figure 4

Deficit-Minded Explanations of Equity Gaps and Equity-Minded Questions



From "Assessing Underserved Students' Engagement in HIPs," A. Finley & T. McNair, 2013, Copyright 2013 by the Association of American Colleges and Universities.

The mainstream public, our faculty, administration, and fellow students hold meritocratic and deficit ideologies. Faculty are often among the most influential groups for underrepresented and minoritized students (Bensimon, 2007; Hurtado, 2011; McCallen & Johnson, 2020). They can mitigate structural barriers facing students in higher education (Bensimon, 2007) and provide additional social capital, particularly for FGS (McCallen & Johnson, 2020).

However, faculty are not immune from deficit thinking and potentially can cause significant harm to students. Faculty interact with students in social situations through classroom interactions, unstructured office hours, advising discussions, and spontaneous meetings in the hall, all of which can display implicit faculty bias (Greenwald, 1995; O'Meara, 2021). O'Meara (2021) discusses the impact faculty have on students by stating, "because of their distinct roles in classrooms, in designing curriculum, in knowledge production and gatekeeping, faculty exercise discretion in areas with high stakes for equity and full participation" (p.558). Bensimon & Gray (2020) suggest that faculty must be aware of these potential prejudices and become equity-minded individuals to alleviate these concerns.

Intersectionality, Habitus, and Cultural Capital

Although my primary purpose in this disquisition is to discuss FGS involvement in HIPs, I would be remiss not to include a brief discussion of intersectionality and the impact of habitus and cultural capital. These concepts have been widely studied in women's studies, sociology, psychology, communication, political science, history, marketing, health sciences, education, and many more.

Intersectionality is the relationship between societal classifications and how these categories intersect with societal power relations (Collins & Bilge, 2020). This lens helps us see how the combination of race, class, gender, sexuality, nationality, ability, age, language,

ethnicity, and others intertwine to affect how power relations within society impact an individual. FGS, like all students, consist of more than just this status. They could include women, veterans, black, parents, older, low-income individuals, or any combination of the above identities. Considering a broader view of FGS in developing potential solutions to this problem is essential. Intersectionality can be an analytic tool to help us understand the complete picture.

The lack of involvement in HIPs is not a concept reserved for FGS. Students in different racial, ethnic, or sexuality-based groups also do not participate at the same levels as their peers (Finley & McNair, 2013; Hembroff & Rusz, 1993; Kinzie et al., 2020; NACE, 2019a; NSSE, 2020; Siddiqui & Jessup-Anger; 2020; Simon & Ainsworth, 2012; Stewart & Nicolazzo, 2018). This layering of potential barriers facing students from multiple categories compounds understanding the problem and identifying a possible solution.

At the crux of these identities is the conversation of Pierre Bourdieu's concepts of cultural capital and habitus and what resources students bring to support their involvement and overcome structural barriers placed in their path. Habitus is a construct that incorporates individuals who share similar conditions, dispositions, preferences, and practices in social settings (Horvat, 2003). Every aspect of an individual's upbringing and social situation impacts their development of habitus, including race, class, gender, ethnicity, location, and other categories. Related to habitus is cultural capital, which Lamont and Lareau (1988) define as "widely shared high-status cultural signals (attitudes, formal knowledge, behaviors, goods, and credentials) used for social and cultural exclusion" (p. 156). Higher education gatekeepers, like faculty and staff members, consciously or unconsciously respond to these hidden signals and respond differently to students who match these expectations. Students who indicate they have the right cultural capital are referred to HIP opportunities that others may not (Simon &

Ainsworth, 2012). Intersectionality, habitus, and cultural capital point to a multi-layered approach to understanding FGS involvement in HIPs. The ultimate culprit to access for these students may be a mixture of addressing the underlying issue of cultural capital through gatekeeping bias.

Finally, the last branch comprises the potential organizational causes underlying the lack of FGS involvement in HIPs. One of the primary causes in this area is the structure and policies surrounding the HIPs process. Institutions may not have a transparent system established for becoming involved in HIPs that can often confuse FGS and their families (York-Anderson & Bowman, 1991; Unverfeth et al., 2012). Navigating higher education bureaucracy is often overwhelming, and many institutions do not consider the FGS experience in navigating these processes. Another potential organizational cause is the lack of specifically identified marketing and communication shared with FGS regarding HIPs. If students can navigate the process and determine where to start, they are often misinformed about the expectations, financial obligations, and self-navigated structure required to be involved. These misperceptions cause additional barriers for FGS seeking involvement in these activities. Students often hear about and decide to pursue HIPs through faculty referrals (Foltz, 2020). Faculty support and influence can help students identify potential actions that support their personal and professional development. However, if faculty are making referrals and assumptions on which students will be successful based on deficit-based thinking or stereotypes, then often FGS may be looked over for these opportunities (Killpack & Melón, 2016; Milkman et al., 2015; Moss-Racusin et al., 2012; Ott & McTier, 2020).

Along with these broader institutional barriers, problems are specifically related to the design of HIPs. Service-learning and other activities have been critically examined to uncover

the perpetuation of racism and classism if not designed with equity at the forefront (Irwin & Foste, 2021; Kilgo, 2016; Nuñez, 2017; Stewart & Nicolazzo, 2018; Schalewski, 2020).

Institutions have also struggled with implementing these practices effectively for students, with some institutions creating overly burdensome processes and institutional hurdles. Instead, institutions must be thoughtful in designing HIPS to ensure scalability (Kuh & O'Donnell, 2013), institutionalization (Perez, 2016), and quality of experiences (Zilvinskis, 2019) for all students.

FGS involvement in HIPS has many moving parts that play a role in the success of these students. As practitioners, we must be aware of meritocratic and deficit-based thinking when identifying the causes of this issue. Keeping equity, sound design practices, and the interplay of faculty and students at the forefront of these discussions will help address these concerns for FGS.

The Local Context

This project will focus on one university's HIP practices and student population. This institution struggles with FGS students' involvement, organizational challenges in the structure of HIPS, and communicating these opportunities to students.

Western Carolina University (WCU) is a comprehensive 4-year regional university in the southeast. The surrounding community is rural; however, several major metropolitan centers are within three hours of the campus. WCU's surrounding county is majority white (80%) and has a higher than the national average poverty rate of 19.4% compared to 13.1% nationally (U.S. Census, 2018). The University serves over 12,000 students through residential and distance programming. Most students are white (78.6%), 18-24 years of age (72%), in-state (88.7%), and undergraduates (86%) (Western Carolina University, 2019). Many WCU students are first-

generation (43%), and most come from the surrounding geographic region (J. Kelly, personal communication, July 23, 2020).

WCU spreads out HIPs across various units and divisions. The Association of American Colleges and Universities (Kuh, 2008) has identified 10 HIPs spread across 12 departments and 10 senior leadership units (Figure 5), with no reporting or management structure to coordinate efforts across these departments. This lack of a central system results in departments creating their own processes for involvement in HIPs, no primary way to obtain information for students and faculty, and haphazard marketing and promotion opportunities. For this intervention, I focused on the four HIPs that report to the Vice Provost and Associate Provost for Academic Affairs: (a) service-learning, (b) study abroad, (c) undergraduate research, and (d) internships.

The disjointed nature of HIPs is detrimental to the institution's success and a hindrance for FGS. Often FGS struggle with navigating the complexity of higher education and understanding the effect that HIPs can have on their personal and professional growth. By keeping HIPs decentralized, the institution maintains barriers for FGS to navigate in becoming involved in these activities. These students must go to several websites and employees to learn about the process, discuss their options, and gauge which practices make the most sense.

Often faculty are the most influential guides for students during their university experience and are often the first-place students hear about potential opportunities and activities on-campus (Foltz, 2020). WCU also has a close relationship between students and faculty. Faculty often recruit students for internships, study abroad, research, and service-learning designated (SLC) courses for the following semester. They are also the first contact for students' undergraduate research and internship processes. However, some faculty have expressed concern over referring students to HIPs. Faculty and staff have discussed amongst themselves that they

Figure 5*HIP Reporting Structure at WCU*

HIPS Experience	Department	Unit	Division
Capstone Courses	Academic Colleges (6)	Dean of the Academic College (6)	Academic Affairs (Provost)
Collaborative Projects	Academic Colleges (6)	Dean of the Academic College (6)	Academic Affairs (Provost)
Learning Communities	Office of the Provost	Office of the Provost	Academic Affairs (Provost)
Writing Intensive Courses	Not Offered	Not Offered	Not Offered
First-Year Seminars/Experiences	Office of Student Retention	Academic Success (Assoc. VC for Student Success)	Academic Affairs (Provost)
Common Learning Experiences	Office of Student Retention	Academic Success (Assoc. VC for Student Success)	Academic Affairs (Provost)
Undergraduate Research	Office of Undergraduate Research	Assoc. Provost for Academic Affairs	Academic Affairs (Provost)
Diversity/Global Learning	Office of International Studies	Assoc. Provost for Academic Affairs	Academic Affairs (Provost)
Service Learning	Center for Community Engagement and Service Learning	Vice Provost for Academic Affairs	Academic Affairs (Provost)
Internships	Center for Career & Professional Development and Academic Colleges	Vice Provost for Academic Affairs	Academic Affairs (Provost)

do not feel the student would be "a good representative of WCU," would "require more time and effort to work with because they are not academically prepared," or would "not be able to compete with more competitive students." These comments echo the stereotypes many individuals hold about FGS and can indicate faculty bias about these students.

The faculty and staff belief that FGS are under-prepared academically has significant effects on their ability to see these students succeeding in the classroom and in co-curricular activities like internships, study abroad, undergraduate research, and service-learning (Killpack & Melón, 2016; Lanzi, 2020; Milkman et al., 2015; Moss-Racusin et al., 2012; Ott & McTier, 2020; Ward, 2013). At WCU, many FGS may be identified as part of the Academic Success Program (ASP), a conditional admittance program, where the label given to these students impacts their future relationships with faculty members. Faculty may not believe FGS can participate effectively in HIPs and may unconsciously refer other students for these opportunities.

As gatekeepers to these opportunities, faculty and staff members rely on their interpretation of a student's background, values, beliefs, or experiences to determine what they can accomplish while participating in a HIP. This cultural capital and habitus that a student brings to the forefront in their conversations with faculty and staff members can have a chilling effect on their likelihood of referring these students for these opportunities (Horvat, 2003; Lamont & Lareau, 1988; Simon & Ainsworth, 2012).

At WCU, FGS are not participating at the same level as their peers in HIPs. The University is a regional institution with a 43% population of FGS (J. Kelly, personal communication, July 23, 2020). Given the University's mission to serve and support these students, one would expect to see a representative proportion of these students involved in HIPs

at WCU. However, given the institution has a FGS population of 43%, you would expect to see 43% of FGS students participating in HIPs at WCU, which is not currently the case.

Table 2 shows the percentage of FGS participating in study abroad, service-learning, undergraduate research, and non-required undergraduate internships during the Fall 2018 – Spring 2021 semesters. The data show the underutilization of FGS in HIPs, which is well below 43%, which is expected (Cruz Paul, 2021). The underrepresentation and lack of access for FGS in HIPs are worth attention. Given the potential benefits for FGS and the large population of these students served by WCU, it is surprising that the institution has not attempted to address this. The four departments offering these HIPs report to different administrative heads and are all within the Division of Academic Affairs but lack central leadership. There has also not been a concerted effort to identify HIPs usage on campus or to break down the participation statistics by demographic data. This intervention will be the first time the institution has looked at FGS involvement in HIPs.

Table 2

Percentage of FGS' Involvement at WCU

	Fall 2018	Spring 2019	Summer 2019	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	GOAL FGS %
Study Abroad	12.9%	23.3%	14.3%	27.3%	30%	COVID	COVID	COVID	43%
Non-Required Internships ^a	8.3%	0.0%	15.6%	27.3%	22.2%	23.5%	13.3%	25%	43%
Undergraduate Research	16.7%	16.1%	20.0%	22.9%	20.0%	45.5%	24.4%	25%	43%
Service Learning	37.7%	35.6%	22.9%	42.7%	34.6%	COVID	46.5%	37.9%	43%

^a Sample of 140 courses taken from the College of Arts and Sciences and the College of Business that do not necessitate an internship as a graduation requirement.

In the Spring of 2021, I held focus groups with FGS, who shared their perspectives on HIPs at WCU. These students expressed frustration with the convoluted process, the lack of support from faculty and staff, and a general lack of advertisement of the offerings. These qualitative findings contextualize our understanding of FGS involvement in HIPs at WCU.

The first student addressed the lack of advertisement at WCU as a concern. She felt the University did not do a good job promoting co-curricular experiences at the same level as social experiences.

I don't think that HIPs are necessarily part of the culture here just because, like they advertise like the fun activities, all the time that are on Engage but don't necessarily reach out about service-learning opportunities or anything like that.

In utilizing the school's primary engagement website *Engage*, the student felt that the University did not emphasize HIPs like service-learning for her connection to on-campus activities. HIPs like service-learning, undergraduate research, and internships are often attached to coursework. These activities are conveyed to students through word-of-mouth from advisors and faculty, making engaging FGS in these practices increasingly challenging unless the University provides targeted and consistent marketing of these offerings in ways that students hear the message.

The second student identified the potential barriers FGS face in engaging in activities primarily 'invite only' or promoted through word-of-mouth. In a closed process like undergraduate research or internships where students must talk one-on-one with a faculty or staff advisor to get information, gatekeeping and unconscious bias can affect access to FGS.

Undergraduate research is something my advisor has talked to me about a few different times, and I'll like try to get information from him about it, and it's like I'm like pulling his teeth out like he doesn't want to tell me.

Students who do not fit the traditional student mold (i.e., white, middle class, continuing generation) face an undercurrent of deficit thinking about their abilities to succeed in HIPs. Given that many of these activities are conducted in concert with faculty and staff support, this places an additional barrier that FGS may have to overcome to gain equal access to these activities.

The final student I spoke with stated that they found getting involved in HIPs challenging and that the institution lacked good communication and guidance.

When I did my internship, I didn't know I had to do it until it was time to do it...so it was like a mad scramble to find an internship, but no one could tell me where to find one. I had to kind of look for that myself, and then, when I did find one, it was great...it was a difficult process to navigate, especially when you didn't even know where to start.

Addressing these concerns through targeted marketing to FGS students will provide some of the context and cultural capital these students are missing compared to their peers. Continuing generation students have family and peer support that gives information about these opportunities. In contrast, FGS must rely more heavily on the information they receive directly from the institution, faculty, or staff. These conversations with FGS echo the need for a unified solution to this problem of practice.

Theory of Improvement

When looking at a problem within the context of an organization, it is easy to identify the surface-level causes and address those. Identifying surface causes repeatedly happens in higher education, where a band-aid approach is often applied to complex problems. Utilizing tools to

identify specific improvements to address these problems appropriately is essential. I created a driver diagram (Figure 6) to help explore why WCU FGS are not involved in HIPs as their peers and what practice changes could help improve this.

Given the limited involvement FGS have at WCU in HIPs, it is essential to target this population in any solution created.

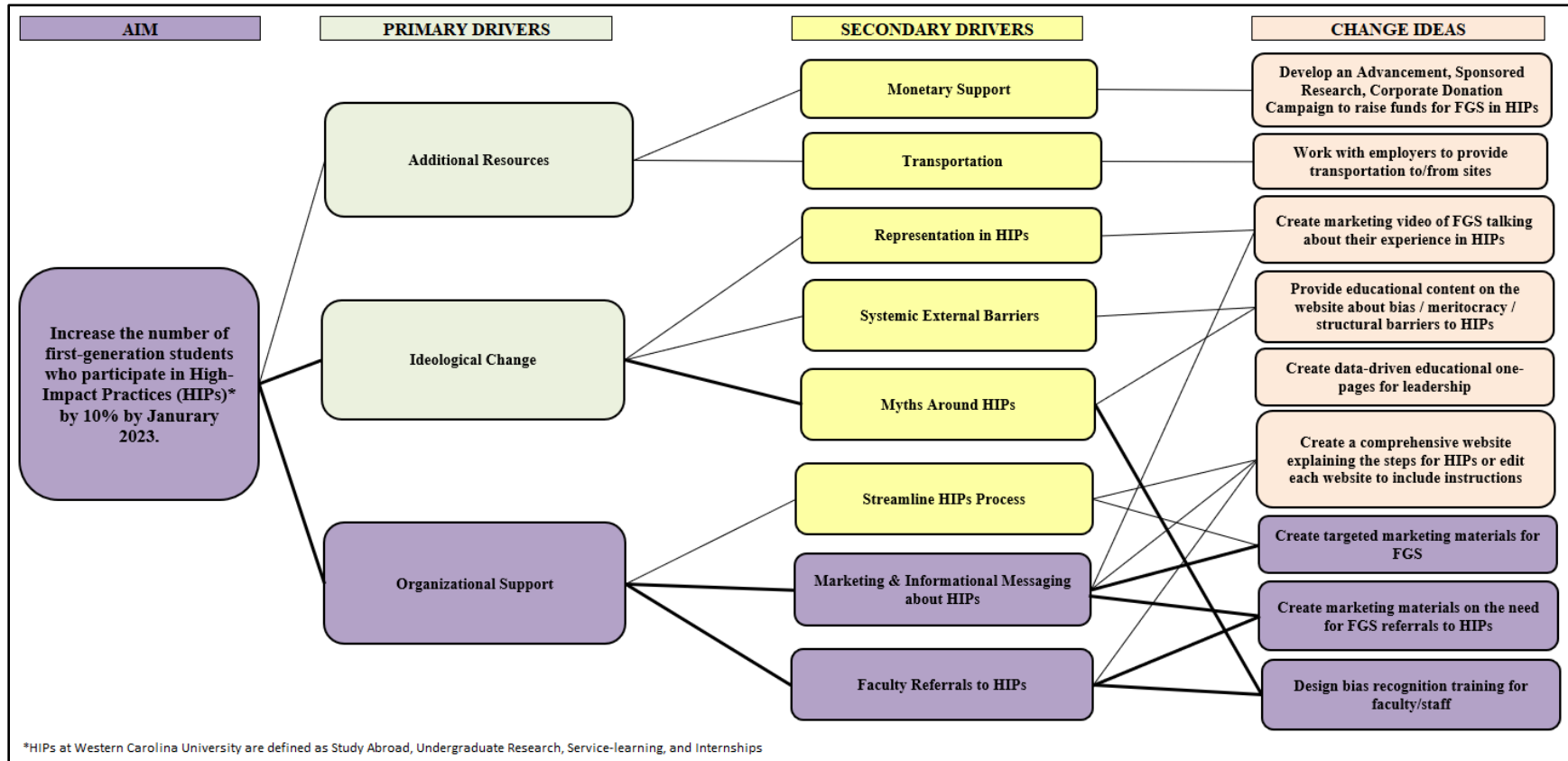
My theory of improvement holds that implementing an awareness campaign about HIPs and FGS bias with faculty and staff advisors and crafting targeted educational marketing materials for FGS will mitigate the disparate involvement of these students.

Creating awareness with faculty and staff advisors increased student referrals to HIPs and educated faculty/staff on potential biases that may negatively impact FGS involvement in HIPs. Also, increasing the targeted marketing to FGS attracted students who may not see themselves as part of the HIPs culture. After this one-year project, I expected a 10% increase in FGS participating in HIPs by Spring 2023. In the long term, I should see FGS involvement in HIPs reflects the proportion of FGS attending WCU, which is 43%.

To showcase my theory of improvement, I have utilized a driver diagram to display how these improvement initiatives impacted the drivers that led to our project goal (Figure 6). For this project, I focused on the purple sections of the driver diagram. The project's aim is on the far left of the chart: to increase FGS participation in each HIP by 10% by Spring 2023. To get there, we must impact the primary and secondary drivers. In this project, I focused on the organizational support offered to FGS. In particular, the secondary drivers of the faculty/staff advisor referral pipeline to HIPs and the educational marketing information about HIPs for FGS. I increased FGS' knowledge about HIPs at WCU and their participation by impacting these areas. I widened

Figure 6

Driver Diagram of FGS Access to HIPs



the avenue to access HIPs through increased advisor referrals. I did this by instituting several new initiatives.

I created educational materials targeted at the faculty/staff advisors of WCU. These materials educated the campus partners on the HIPs process at WCU and provided informational statistics on the importance of FGS involvement. These materials included information on the advisor's crucial role in helping FGS participate in these activities. Materials consisted of data on the importance of advisor-student relationships, unconscious bias, and cultural gatekeeping practices that may undermine advisors' interactions with FGS (Killpack & Melón, 2016; Milkman et al., 2015; Moss-Racusin et al., 2012; Ott & McTier, 2020).

The second initiative was to create and utilize effective marketing materials promoting HIPs for FGS. By creating targeted marketing materials, we could better attract and impact these students' participation decisions (Aaker et al., 2008; Reutterer et al., 2006; Rupp et al., 2014). It was also important to streamline and make the high-impact process transparent. Often university processes are cumbersome to students, especially for FGS who are less familiar with higher education bureaucracy (Unverfeth et al., 2012). Coordinating the marketing of these departments into a cohesive strategy and streamlining the processes into an easily accessible website allowed all departments to push students to one cohesive site with easy steps to navigate, eliminating needless institutional barriers to HIPs. I impacted student participation in HIPs through these marketing materials by targeting FGS. I also hoped to increase the number of FGS referred by faculty to these practices, increasing the overall number of students becoming involved in HIPs at WCU.

Positionality Statement

My involvement in this project has many parts, including my roles as a practitioner, scholar, and member of the FGS community. To implement my project, I assembled a team of colleagues at WCU who assisted me in realizing my intended changes. Each member was selected for their role and work with FGS (Table 3). First, I included an administrative person with influence and decision-making power for each HIP to provide feedback on the marketing initiatives. These consisted of the Executive Director of the Center for Community Engagement and Service Learning (CESL), who worked with faculty to offer service-learning courses, the Study Abroad Advisor who implemented the study abroad program for undergraduate students, and the coordinator of undergraduate research who managed the research programming and conferences. Finally, I was the Director of the Center for Career & Professional Development (CCPD) and managed academic internships for half of the academic departments on-campus. Along with these team members, I included the Assistant Director of ASP, who works with FGS and programming specific to them, and the Director of the Advising Center, who had insight into

Table 3

Design Team Membership, Credentials, and Responsibilities

Role	Office	Responsibilities
Executive Director	Center for Community Engagement and Service Learning (CESL)	Service Learning
Director	Center for Career & Professional Development (CCPD)	Internships
Study Abroad Advisor	International Programs and Services	Study Abroad
Coordinator	Undergraduate Research	Undergraduate Research
Assistant Director ASP	Mentoring and Persistence to Success	FGS
Director	Advising Center	Faculty/Staff Advisors
Student Representative 1	English Major	FGS
Student Representative 2	Social Work Major	FGS

the timing of the project and feedback on the design for faculty and staff advisors. Finally, I included two first-generation undergraduate students who provided insight from the student's perspective about the marketing initiatives.

As a practitioner, my interactions with these design team members in my everyday work could have impacted how this intervention was conducted and analyzed, which was considered when developing a design team. The CCPD is in the same division as CESL and reports to the same supervisor, which creates a level of competitiveness between the Executive Director and me. I also possess a higher title than the Study Abroad Advisor and the Assistant Director of ASP, resulting in a power differential.

Given this project's setting, it was essential to understand my positionality and relationship to the subject, context, and individuals involved. As a scholar, I have the opportunity to examine and collect data about my problem of practice, which was my intervention's focus. I was accountable for interpreting and analyzing the data I collected, placing meaning on these data, and deciding what was essential and what was not. I was a part of this process, and as a practitioner, I was vested in the success of these programs. I was also a colleague for those who engaged with me on this improvement work and needed to maintain long-term relationships with them well after the intervention concluded. Given these dual roles, I had to recognize the differences and similarities to navigate effective relationships with those involved in the project.

Along with these two roles I played in this intervention, I also recognized the identities I brought and how they affected my relationships and interactions with others. My project's design team was comprised of the four leaders of HIPs at WCU. We are mostly white, in our 30's – 40's, have Master's degrees, live in the local area, and work at the same institution. We share similar values and opinions about student success, higher education, and change

initiatives, and I share a comparable title with many of these leaders. However, my title is more elevated than two of the individuals.

Given these similarities, I included additional design team members. I believe that it was vital to invite several FGS members. The difference in perspective was critical for identifying a meaningful change that impacted all students. Stewart and Nicolazzo (2018) have determined that it is best practice to include the most vulnerable populations of students in the planning process to craft improvements that are best for these students and, in so doing, are best for most students. By including FGS in this process, I can increase the likelihood that my change initiatives are designed for the success of the population I hope to serve.

The student participants in HIPs at WCU share some identity categories with me. I am a white female, like many students at WCU. I was also a FGS and was Pell-eligible while in college. These similarities give me insight into these students' possible perceptions and struggles. However, it has been over 15 years since I was an undergraduate student, and the world context has changed significantly since that time. I am also different from the students at WCU in several crucial ways. I am not from North Carolina. With over 80% of the students coming from North Carolina, I do not have the same geographical context. I also attended a suburban/urban university while in school. The institution was the same size as WCU and was a public university but had a more diverse student population. The university I attended was closer to regional partners that often host sites for HIPs compared to students at WCU. This difference could be potentially critical, given that many HIPs rely on partnerships with community contacts and depend on additional resources.

Finally, I am very interested in first-generation and low-income students. I care deeply about public-serving institutions and their impact on these populations of students. I see higher

education as a means to socioeconomic mobility for students and that HIPs are essential for FGS to obtain more meaningful employment. My deep interest in this topic could present biases in my work and impact how I interpret results. When studying and reporting on this topic, I needed to be mindful of my identities, interests, and relationships.

Improvement Initiative

In understanding my unique perspective on the problem and the identified areas from the literature, utilizing the driver diagram above helped identify a viable solution. The improvement initiative outlined below addresses the concerns identified in the national literature and the contextual complexity of the institution.

To increase FGS involvement in HIPs at WCU, I needed to increase access to the current opportunities available to students. One of the most significant ways to market to students about co-curricular activities is through word-of-mouth from faculty members and advisors (Foltz, 2020). Because advisement is a central access point for most students, it was essential to address some potential barriers and gatekeeping biases for FGS. Also, as marketing processes have adapted to understand their consumers, differentiated marketing styles or targeted marketing have proven successful for specific groups (Aaker et al., 2008; Reutterer et al., 2006; Rupp et al., 2014).

I created marketing material for faculty and staff advisors, including an informational video component that outlined the importance of faculty referrals of FGS to HIPs and addressed the unconscious biases and gatekeeping practices that discourage student involvement. The video also included information on the HIPs offered at WCU and how to help students access those services. I created a short 2.4-minute animated video that showcased FGS' challenges in higher

education. The video highlighted the statistics of FGS involvement in HIPS and identified faculty and staff advisors' roles in mitigating these differences through holistic advisement with students, and identifying potential ways for FGS to get involved in HIPs. The video labeled and mitigated unintentional bias and deficit thinking in working with students.

In addition to the video for advisors, I crafted targeted email marketing explicitly for FGS for this project. The marketing designs were purposeful to educate students about the process for involvement in HIPs and to direct them to a central website with additional information. The marketing was sent through email to students' university email addresses.

The project period was from Spring 2022 through Spring 2023 (Figure 7); the student marketing materials were developed during Spring 2022 and launched during Summer 2022 and Fall 2022 semesters. I tracked email read, click, and website traffic rates during this time. The faculty marketing materials were designed during the Summer 2022 semester and implemented in Fall 2022. I sent the initial email with the pre-test and video to the faculty and staff advisors right before the advising window opened during the semester. I administered the post-test in late November into early December after the advising period. Student participation numbers in the HIPs for first-generation and continuing-generation students were tracked during the project period and included baseline data from Summer 2021, Fall 2021, and Spring 2022.

Measuring these initiatives were essential to determine if these solutions impacted FGS and their involvement in HIPs. Improvement science tools like the fishbone and driver diagrams helped us conceptualize the problem and solution. However, other instruments, such as the PDSA cycles and run charts, were also valuable in assessing the impact of these initiatives on our identified group of participants.

Figure 7

Implementation Timeline for Improvement Initiative Gold=formative assessment
Purple=summative assessment

	Jan. - Mar. 2022	Apr.- May 2022	June- July 2022	Aug 2022	Sept 2022	Oct 2022	Nov 2022	Dec. 2022	Jan 2023	Feb. 2023
Collect baseline participation data	✘									
Collect baseline website traffic data	✘									
-Create Student Mkt. Materials -Create Marketing Timeline		✘								
Implement 1 st round of marketing to FGS students			✘	✘						
Analyze student marketing data and make changes			✘	✘						
Implement 2 nd round of marketing to FGS students				✘	✘	✘	✘			
Measure email campaign and website traffic data			✘	✘	✘	✘	✘			
Measure marketing process to ensure it is distributed based on the timeline			✘	✘	✘	✘	✘			
-Create advisor mkt. materials			✘							
Implement advisor video campaign						✘				
Conduct advisor pre-test						✘				
Conduct advisor post-test							✘	✘		
Collect student survey data		✘		✘				✘		✘
Collect student participation data for project period									✘	✘
Analyze data									✘	✘
Write Up Results									✘	✘

Formative and Summative Evaluation

Improvement science identifies what works, for whom, and in what context to initiate small changes resulting in more extensive systemic transformation (Bryk et al., 2017; Cohen-Vogel et al., 2015; Crow et al., 2019; Langley et al., 2009). These small changes are initiated in cycles used to make formative changes to the improvement project resulting in a change. Assessment and evaluation of these changes are imperative to understand the impact and context through which these initiatives make a difference. Without conducting formative and summative assessments, I cannot tell if a change is an improvement and in which ways.

One of the key ways to ensure that practitioners understand the problem and determine effective solutions is to utilize a Plan, Do, Study, Act (PDSA) cycle (Crow et al., 2019; Langley et al., 2009). I used the PDSA cycle to plan the change I wanted to implement with thought and by utilizing the knowledge I have already gained. Then I executed my team's defined change. I studied the evolution within the project by collecting data about the process and the impact the intervention has had. Finally, I made any adjustments or changes based on what I learned. The framework is meant to have multiple cycles where the method or initiative adjustments happen each time.

The ultimate goal of the evaluation process is to ensure that we understand the overall change and how best to implement the change. The formative assessment through the PDSA cycles ensures that our transformation is not just implemented without thought but is designed intentionally. To determine if the final goals are met for the project, it is necessary to create a summative assessment process that will measure our ultimate aim and identify without a doubt that our change was impactful.

For this project, the Plan, Do, Study, Act (PDSA) cycles provide a framework for efficient program adjustments to identify and eliminate barriers FGS face in HIPs (Langley et al., 2009). The launch of each marketing initiative triggered a new PDSA cycle that was analyzed through process measures. The project used a quantitative approach, including survey, click rate, engagement rate, website traffic rate, and participation data (Table 4). Utilizing improvement science techniques, I identified formative assessment methods, which included two driver measures to assess the student marketing initiatives and three driver measures to measure advisor knowledge of HIPS, level of bias, and engagement with the change initiative. The process measure determined if the student and advisor marketing plans were followed as intended. Finally, the design team had summative assessment methods to determine if the ultimate aim of the project was met and if there were any unintended consequences of this project. The outcome measure assessed the level of FGS involvement before, during, and at the end of the project. The balance measures helped to determine if there were negative impacts to implementing the change in the population.

Table 4

Measures for Improvement Initiative

Measure	Assessment Method
<i>OUTCOME MEASURE:</i> Measure FGS involvement in HIPs Count of F.G. and Non-FG student participation for each HIP	Descriptive Statistics
<i>DRIVER MEASURE:</i> Measure student marketing outreach initiative Click, engagement, and web traffic rates	Descriptive Statistics
<i>DRIVER MEASURE:</i> Measure student marketing outreach initiative Short survey administered to students involved in HIPs to determine how they heard about the opportunity	Descriptive Statistics

<i>DRIVER MEASURE:</i> Measure advisor knowledge of the HIPs process Pre-and Post-Test Faculty/Staff Survey	Paired Samples t-test
<i>DRIVER MEASURE:</i> Measure advisor level of bias and bias awareness Pre-and Post-Test Faculty/Staff Survey	Paired Samples t-test
<i>DRIVER MEASURE:</i> Measure advisor engagement with video content Viewing length of video content	Descriptive Statistics
<i>PROCESS MEASURE:</i> Measure how the marketing plan was followed Calendar checklist completed by the project lead	Run Chart
<i>BALANCE MEASURE:</i> Measure if improvement had a negative impact on FGS GPAs Participating FGS GPAs	Paired Samples t-test
<i>BALANCE MEASURE:</i> Measure if improvement has decreased non-FGS involvement HIPs attendance data	Descriptive Statistics

Formative Assessment

Throughout the project timeline, it was necessary to continue evaluating our marketing initiatives' impact. I attached a measure to understand the overall effect of these changes on student involvement in HIPs. These results helped to monitor what was happening during the process and helped to provide ongoing feedback that I could use to improve the process.

Student Marketing Initiative

I measured email open and click rates to calculate the targeted email marketing impact on FGS. I also measured the HIP website page views, average time spent on the page, bounce rates, and exit percentage rates (Roy & Sharma, 2021). The goal was to measure the email marketing campaign and the traffic driven to the main HIPs website containing information about the HIPs process. I duplicated this process in the Fall 2022 semester with the second set of emails that

went out. A short survey was also sent to all students involved in the identified HIPs during the Spring 2022, Summer 2022, Fall 2022, and Spring 2023 semesters to determine how they heard about the opportunity.

To understand how students received the marketing, I created a set of four emails (see Appendix A for a sample email). The first of which was emailed to all registered students. For continuing generation students, the subsequent three emails included the same content with a different title. However, for the FGS, edits were made to the email content and titles. Duplicate emails were sent to registered students in the Summer 2022 and Fall 2022 semesters. The emails were sent in a newsletter format using Cerkl, an internal communications software, with pictures, text, and a button to direct the reader to the HIPs website for more information. Data were collected using the Cerkl email analytics feature. The number of total emails sent, overall opens, unique opens, overall clicks, and unique clicks were tracked along with the open and click rates for both the Summer 2022 and Fall 2022 semesters.

Open and clicks refer to the total amount of times the email was opened or the links were clicked (Table 5). The unique opens and unique clicks refer to the first time an individual opens an email or clicks the link. The open rate is the percentage of the total emails sent that were opened, and the click rates are the percentage of clicks for the included link. For all emails sent, the click rates remained relatively steady across all populations and semesters. These rates were also relatively low compared to average click rates for the education industry, which hover at about 4.4%, but the open rates for these emails were much higher than the average of 28.5% (Campaign Monitor, n.d.b).

The open rates for the Summer 2022 semester were 5% points higher for FGS compared to their continuing-generation peers. However, this did not hold in the Fall 2023 semester.

Table 5

Student Email Marketing Campaign

Email Title	Summer 2022							Fall 2022						
	Sent	Open	Unique Open	Open Rate	Clicks	Unique Clicks	Click Rate	Sent	Open	Unique Opens	Open Rate	Clicks	Unique Clicks	Click Rate
All Registered Students														
Getting Involved With WCU	2966	2454	1423	48%	34	31	2%	8092	6696	3769	47%	74	65	2%
FGS														
Success is More Than a Degree	1071	910	512	48%	14	13	3%	3659	2606	1497	41%	36	33	2%
Getting Paid or Getting Skills. Do I Have to Choose?	1071	863	500	47%	12	11	2%	3659	2690	1525	42%	33	30	2%
Making the Most of Your Fall Semester	1071	969	519	48%	8	8	2%	3659	2625	1492	41%	13	13	1%
Continuing Generation Students														
Success is More Than a Degree	1879	1293	751	40%	6	6	1%	4434	3386	1888	43%	24	20	1%
Well-Rounded Students "Win" in Jobs and Grad School	1879	1367	765	41%	15	14	2%	4433	3353	1909	43%	37	37	2%
Add to Your Degree with these Practices	1879	1597	878	47%	35	25	3%	4433	3005	1775	40%	17	16	1%

Instead, FGS were 1% point behind their peers in their open rates for the fall. This difference may indicate that FGS are interested in co-curricular activities but are more open to the possibility when they feel less pressured, like in a summer semester. Instead, during the fall semester, FGS may struggle to keep up with their academic, work, and other commitments pitting these co-curricular activities against an already tight schedule. Interestingly, continuing generation students had an open rate in their first two emails at 40% and 41%. However, their last email jumped to a rate of 47% in the summer. This difference may indicate that continuing education students may be less diligent in checking their emails during the middle of the summer semester compared to the beginning and end of the semester. In contrast, FGS consistently check their emails throughout the semester. The differences in the subject lines of the emails did not seem to make a difference regarding open rates for this project.

In addition to tracking the email open and click rates, the intention was to follow the website traffic rates for the newly designed HIPs website (see Appendix B for old and new designs). Google Analytics was set up on the site and tracked by the University's web management team from May 2022 – December 2022. These data were pulled in December 2022 and analyzed. Once the reports were pulled, it was clear there was a problem with the Google Analytics setup and that the data from May 2022 – September 2022 had been tracked incorrectly. When the University hired a new web data management employee, they brought this to the web team's attention and redesigned the tracking protocols, affecting this project's data. The only accurate data were collected for October, November, and December 2022. Despite the small amount of data that was obtained, I was able to glean some insights. In Table 6, I measured the total and unique number of times the page was viewed, and the average amount of time a viewer spends on the page. The bounce rate is the percentage of viewers who visited the landing page

but did nothing on the site and left, and the exit rate is the percentage of viewers who closed or jumped out of the landing page to a subpage within the website. Overall, the website performed well, with visitors viewing the homepage for over a minute. In addition, the percentage of viewers who then went on to a subsequent page was reasonably high, with, on average, 40.16% of viewers moving on to another page on the site, which was the ultimate goal for the site design. I also saw spikes in page views centered around the dates the emails were sent out. It indicated that the emails were driving web traffic to the site.

Table 6

Web Traffic for HIPs Website

	Pageviews	Unique Page Views	Avg. Time on Page	Bounce Rate	Exit Rate	Date of Traffic Spikes	Date Emails Sent
October	173	134	1:11	39.64%	44.51%	Oct. 9, 10, 30, 31	Oct. 9, 30
November	51	25	1:40	4.14%	23.53%	Nov. 1, 4, 17	N/A
December	21	10	0:08	12.50%	42.86%	Dec. 1, 5	N/A
Total Averages	254	176	1:14	35.97%	40.16%		

The question then becomes, did the email marketing campaign and the redesigning of the website make a difference in how students heard about these opportunities and their level of involvement? From the initial data, it seems that first-generation and continuing-generation students were opening the emails they received. From the website traffic rates, most of those who visited the website found the information valuable enough to see other parts. However, there seems to be a disconnect between the email click rates and the website traffic rates, and it is clear that even though students opened the emails, very few of them clicked the button to go to the website for more information.

In addition to the marketing data, I conducted a series of student surveys (Appendix C) administered each semester from Spring 2022 – Spring 2023. These surveys were collected via

Qualtrics and sent to students who participated in internships, service-learning, study abroad, or undergraduate research. I sent out surveys in the Spring, Summer, and Fall of 2022 at the end of the semester to students who had participated in a HIPs experience. Due to the timing of this project, the Spring 2023 surveys were sent at the beginning of the semester. A total of 522 surveys were collected over the four semesters. The survey asked how the students heard about the HIP opportunities and had them identify if their advisor had discussed these practices with them during their advising session. (The questions related to the student’s advisors are discussed in the Advisor Marketing Initiative section.) The survey asked students to select how they had heard about the HIPs in which they participated. They were able to select multiple options. Most often, students were required to participate in the activity (Table 7). However, faculty referrals and emails were the second and third-highest options. After launching the email campaign to students in the Summer of 2022, I expected growth in the email option. However, this was not the case. I did not see a consistent increase in the number of students who selected email as the way they heard about HIPs opportunities. One reason may be that I did not collect as many results for the survey in the Spring 2023 semester as I did in the previous Spring or Fall semesters; however, this is only conjecture.

Table 7

How Students Heard About HIP

	Spring 2022	Summer 2022	Fall 2022	Spring 2023
Requirement for Program	79	22	36	45
Faculty Referral	50	13	27	12
Email	35	10	22	7
Family/Friend Referral	10	7	4	2
Other	6	15	7	6
Staff Referral	7	1	0	1
Social Media	4	2	0	1
HIPs Website	2	1	0	2

Finally, a process measure was utilized to ensure the marketing emails and surveys went as planned. The design team created a calendar to identify the date for each email and each survey reminder to go out to students. As the team sent out the emails and assessments, they were tallied on the calendar to ensure the project coordinator followed the plan. In the spring 2022 semester, all student marketing emails and reminders were sent out on the scheduled days. During the summer 2022 semester, all the student surveys were administered on time. Five marketing emails were planned to go out every two weeks. However, because the marketing emails were not created before the semester started, they were not always sent out as scheduled. Two of the five emails were delayed by a few days, and one did not go out at all. This delay was primarily due to external factors hindering the process and because each email's design required finding and writing new content and identifying new images. During the Fall 2022 semester, all four created emails were distributed on time because they had already been developed. The emails in the fall semester were all pre-scheduled using the Cerkl software and went out as planned every three weeks during the semester. I administered the student surveys on time for the fall 2022 and spring 2023 semesters.

Advisor Marketing Initiative

The advisor marketing process differed from the student marketing process. The design team chose to educate the faculty and staff advisors about the HIPs process and FGS' barriers through a short video. The video included information about unconscious bias and deficit thinking and the advisors' role in helping students to get involved in HIPs. To assess the impact of this driver, I used a pre-and post-test survey to measure advisors' knowledge of HIPs at WCU and their level of bias and bias awareness before and after watching the video. The initial pre-test and video were emailed to 371 faculty and staff advisors three weeks before the advising

window began in the Fall 2022 semester. Recipients were asked to complete the pre-test survey via Qualtrics and then were routed to a Panopto video for viewing. A total of 62 (16.4% response rate) completed the pre-test, and of those, 56 (15.9% response rate) went on to view the video, with only 50 (13.5% response rate) completing the video. Seven weeks later, those advisors who had completed the pre-test and viewed the video were asked to complete the post-test survey. Of the 50 advisors who completed the pre-test and viewed the video, 37 (10.0% response rate) finished the post-test.

The level of engagement advisors had with the video content was another driver identified for this project. The driver measure identified was the number of unique views, the number of minutes delivered, and the average completion to determine the effectiveness of the video for faculty and staff advisors. A total of 56 advisors viewed the footage with a 92.80% completion rate. The completion rate indicates that the video was engaging enough to keep the viewer's attention for the entire video. Six advisors did not fully view the video or receive the post-test. For the remaining advisors, the average video duration was 2.4 minutes, the entire length. After sending out the video and the survey, I received a series of emails from a staff advisor stating, "I have referred to our HIP website and made more HIP-related suggestions because of it....it made an impact and helped me change some of my advising habits." She felt that the video helped her identify biases and highlighted HIPs at WCU.

In addition to measuring engagement with the video content, a pre-and post-test survey (Appendix D) was created to measure the next driver. This survey assessed advisors' knowledge of HIPs, the likelihood of referring students, the level of bias, and bias awareness. The video content was intended to lower the advisors' level of prejudice and increase their bias awareness, knowledge of HIPs, and the likelihood of referring students. The first portion of the survey asked

demographic questions to determine if their role, title, length of employment, age, income, gender, or ethnicity made a difference in the results. The second section of the survey asked about the advisor's knowledge of the HIPs process at WCU and their likelihood of referring different types of students (i.e., first-gen, non-traditional, underrepresented) to the four HIPs. The third section of the survey consisted of a shortened version of the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982) to determine how authentic respondents were to the bias scales. The fourth section included a First-Generation Attitudinal Profile developed for this project based on Colbow et al. (2016) Classism Attitudinal Profile to determine faculty members' potential bias toward FGS. Experts from the campus who worked closely with FGS evaluated the items for this measure and provided feedback. Finally, I adapted a Bias Awareness Scale developed by Perry et al. (2015), which was a validated measure of the level of personal bias awareness that Caucasian recipients have toward Black individuals. To adapt the scale, I replaced the word Blacks in the original scale with FGS and used the same statements.

I collected 62 responses in the pre-test and 37 completed the post-test. Given there were more responses for the pre-test, I decided to run independent samples t-tests to determine the relationship between faculty or staff status and results for the knowledge, likelihood, FGS bias, and bias awareness scales for the pre-test group only. I conducted the same tests with the pre-test group to determine the relationship between respondents' undergraduate and graduate first-generation status and their answers on these scales. I created a set of subscales by combining the responses to the items that asked about knowledge of HIPs for each HIP (internships, service-learning, study abroad, and undergraduate research). The items included how knowledgeable they were about referring students, where to go to find information, the benefits, and the requirements of participating in each HIP. I then combined these subscales into an overall

knowledge scale for each respondent. For the likelihood scale, I combined the scores from the questions that asked how likely the respondent was to refer students, first-generation, underrepresented, and non-traditional students for each HIP to create the subscales and then combined these to create an overall likelihood scale. For the FGS bias scale, I combined all nine items to create the scale. I did the same for the bias awareness scale, by combining all four items to make the scale.

In addition to the four scales used for this project's assessment, the survey also included questions proven to determine if the respondent was trying to present themselves in a socially desirable way (Andrews & Meyer, 2003; Reynolds, 1982). I used the Marlowe-Crowne Social Desirability Scale short form to determine if the respondents for this project were more or less likely than the average population to answer their questions truthfully. After reviewing the literature in which the short form had been administered, Andrews and Meyer (2003) determined that the mean and standard deviation scores for a non-forensic group would be $M = 5.37$, $SD = 3.13$. For this study, the advisors who completed the pre-test scored an average mean of 7.5 with a standard deviation of 2.87. Indicating that this pool of respondents is more likely than average to want to appear socially desirable to the test administrator. Wishing to appear socially desirable is essential when reviewing the respondents' answers to their knowledge of HIPS, likelihood to refer students to HIPs, level of FGS bias, and level of bias awareness.

In Table 8, respondents were most knowledgeable about internships ($M = 3.15$, $SD = 1.27$) and research ($M = 3.16$, $SD = 1.16$), whereas they were least knowledgeable about service-learning ($M = 2.81$, $SD = 1.11$). Overall, the advisors were somewhat knowledgeable about HIPs practices, with an average score of 3.03 ($SD = 0.86$). Regarding their likelihood to refer students, advisors were most likely to refer students to internships ($M = 3.90$, $SD = 1.20$) and

undergraduate research ($M = 3.91, SD = 1.04$) and were least likely to refer students to service-learning ($M = 3.57, SD = 1.03$). Even though advisors were more likely to refer students to HIPs ($M = 3.79, SD = 0.85$) than to be knowledgeable of HIPs, they still were only somewhat likely to refer them. Most advisors stated they were not biased toward FGS ($M = 2.82, SD = 0.86$). However, they also indicated that they did not recognize or acknowledge a possible bias with a mean score of 2.00 out of 7.00 ($SD = 1.29$). So even though our advisors stated they were not biased toward FGS and didn't recognize a bias towards these students. They were only somewhat knowledgeable and somewhat likely to refer students to HIPs.

Table 8

Central Tendencies for Subscales and Scales

n = 62	Intern	Service Learning	Study Abroad	Undergrad Research	Overall
Knowledge Scales					
Mean	3.15	2.81	3.02	3.16	3.03
Median	3.25	3.00	3.00	3.00	2.88
Mode	5.00	3.00	2.00	2.00	2.69
Std. Deviation	1.27	1.11	1.03	1.16	0.86
Likelihood Scales					
Mean	3.90	3.57	3.80	3.91	3.79
Median	4.00	4.00	4.00	4.00	4.00
Mode	5.00	4.00	4.00	4.00	4.00
Std. Deviation	1.20	1.03	1.08	1.04	0.85
FGS Bias Scale			Bias Awareness Scale		
Mean	2.82		2.00		
Median	2.89		1.63		
Mode	3.22		1.00		
Std. Deviation	0.86		1.29		

I conducted several independent sample t-tests, utilizing the pre-test responses only, to determine if there was a difference in findings for faculty and staff advisors (Table 9 and Table 10). For the knowledge scale ($t(60) = 0.60, p = 0.27$), likelihood scale ($t(43) = 1.16, p = 0.13$), and FGS bias scale ($t(42) = 0.18, p = 0.43$), there was no significant difference between faculty

advisors' and staff advisors' responses. To test the assumption of equity of variance, I utilized Levene's Test, and the results were not significant for the knowledge scale ($F = 0.00, p = 0.97$) but were significant for the likelihood scale ($F = 4.13, p = 0.05$), FGS bias scale ($F = 5.03, p = 0.03$), and bias awareness scale ($F = 9.05, p = 0.00$). Staff advisors were significantly less likely to acknowledge their potential bias ($M = 1.49, SD = 0.65, n = 17$) than faculty advisors ($M = 2.20, SD = 1.42, n = 45$). The bias awareness scale showed a significant difference between these two groups for this scale ($t(57.74) = 2.71, p = 0.004$). The effect size was medium ($d = 0.57$), measured using Cohen's d test. Overall, there was no difference between faculty and staff advisors on their knowledge of HIPs, likelihood to refer students to HIPs, or bias awareness. However, staff advisors were less likely to acknowledge their bias.

Table 9

Group Statistics Faculty/Staff

	Fac or Staff	n	Mean	Std. Deviation	Std. Error Mean
Knowledge Scale	Faculty	45	3.08	3.08	3.08
	Staff	17	2.93	0.91	0.22
Likelihood Scale	Faculty	45	3.73	0.92	0.14
	Staff	17	3.97	0.62	0.15
FGS Bias Scale	Faculty	45	2.80	0.93	0.14
	Staff	17	2.84	0.64	0.16
Bias Awareness Scale	Faculty	45	2.20	1.42	0.21
	Staff	17	1.59	0.67	0.16

Table 10

Independent Samples t-test for Faculty/Staff

	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	One-Sided <i>p</i>	95% Confidence Difference	
						Lower	Upper
Knowledge Scale	0.002	0.969	0.603	60	0.274	-0.344	0.641
Likelihood Scale	4.133	0.046	-1.162	43	0.126	-0.644	0.173
FGS Bias Scale	5.032	0.029	-0.183	42	0.428	-0.460	0.383
Bias Awareness Scale	9.047	0.004	2.714	58	0.004	0.187	1.242

I had also assumed that if an advisor were a FGS at the undergraduate level, their likelihood to refer students to HIPs would be higher. I also thought that their level of FGS bias would be lower and their awareness of potential bias would be heightened. This hypothesis did not hold. In conducting independent samples t-tests (see Table 11 and Table 12), the assumption of equity variance using Levene's Test was found not to be significant, showing the assumption had not been violated for the knowledge scale ($F = 2.07, p = 0.16$), likelihood scale ($F = 3.43, p = 0.07$), and bias awareness scales ($F = 2.90, p = 0.09$). However, for the FGS bias scale, Levene's Test was significant, showing the assumption had been violated ($F = 6.14, p = 0.02$). The FGS bias scale results showcased a difference ($t(60) = 0.56, p = 0.29$). However, the confidence interval was too broad to say that these are valid results (-0.72 to 0.41). No

Table 11

Group Statistics FG Advisors at UG Level

	FGS UG level	n	Mean	Std. Deviation	Std. Error Mean
Knowledge Scale	FGS	19	2.75	1.00	0.23
	Non-FGS	43	3.16	0.77	0.12
Likelihood Scale	FGS	19	3.59	1.08	0.25
	Non-FGS	43	3.89	0.72	0.12
FGS Bias Scale	FGS	19	2.71	1.10	0.25
	Non-FGS	43	2.86	0.74	0.11
Bias Awareness Scale	FGS	19	1.55	1.02	0.23
	Non-FGS	43	2.20	1.36	0.21

Table 12

Independent Samples t-test for FG Advisors

	<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	One-Sided <i>p</i>	95% Confidence Difference	
						Lower	Upper
Knowledge Scale	2.065	0.156	-1.780	60	0.040	-0.881	0.051
Likelihood Scale	3.428	0.069	-1.264	60	0.106	-0.758	0.171
FGS Bias Scale	6.137	0.016	-0.563	26	0.289	-0.723	0.412
Bias Awareness Scale	2.900	0.094	-1.867	60	0.033	-1.348	0.047

significant difference between first-generation and non-first-generation advisors was found in their knowledge of HIPs, likelihood to refer students to HIPs, or their bias awareness. There was some indication that there might be a difference in the FGS bias scale. However, there were not enough survey results to make a valid claim about these findings.

To understand the driver measure of the impact of our video intervention on our sample of advisors (Table 13 and Table 14), I measured their level of knowledge about HIPs, likelihood to refer students to HIPs, FGS bias, and bias awareness before and after the intervention. I wanted to understand if viewing the short video on FGS’ barriers when accessing HIPs would impact these measures. Initially, the sample had a slight increase in each scale. Their knowledge

Table 13

Paired Samples Statistics

		Mean	n	Std. Deviation	Std. Error Mean
Pair 1	Know_Scale_Pre	3.11	37	0.82	0.13
	Know_Scale_Post	3.39	37	0.64	0.11
Pair 2	Like_Scale_Pre	3.79	37	0.79	0.13
	Like_Scale_Post	4.07	37	0.64	0.11
Pair 3	FGS_Bias_Scale_Pre	2.81	37	0.91	0.15
	FGS_Bias_Scale_Post	2.90	37	0.91	0.15
Pair 4	Bias_Awareness_Pre	2.01	37	1.18	0.19
	Bias_Awareness_Post	2.21	37	1.31	0.21

Table 14

Paired Samples t-test

Paired Differences

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Diff.		<i>t</i>	<i>df</i>	One-Sided <i>p</i>
				Lower	Upper			
Know Scale Pre Post	0.28	0.63	0.10	-0.490	-0.071	-2.715	36	0.005
Like Scale Pre Post	0.28	0.68	0.11	-0.507	-0.054	-2.511	36	0.008
FGS Bias Scale Pre Post	0.09	0.77	0.13	-0.350	0.164	-0.735	36	0.233
BAS Scale Pre Post	1.96	1.06	0.17	-0.550	0.158	-1.122	36	0.135

of HIPs before the video ($M = 3.12, SD = 0.82$) increased after watching the video ($M = 3.39, SD = 0.64$) with a mean difference of 0.28. The advisors' likelihood of referring students to HIPs before the video ($M = 3.79, SD = 0.79$) also increased after watching the video ($M = 4.07, SD = 0.64$) with a mean difference of 0.28. In addition, the advisors' level of bias awareness also increased by a mean difference of 0.20 from before watching the video ($M = 2.01, SD = 1.18$) to after watching the video ($M = 2.21, SD = 1.31$). There was a small increase in the advisors' measurement of FGS bias from the pre-test ($M = 2.81, SD = 0.91$) to the post-test ($M = 2.90, SD = 0.91$), with a mean difference of 0.09. Further analysis with a paired samples T-test revealed the difference in pre-and post-test scores for the knowledge scale was significant, $t(36) = 2.72, p = 0.005$, with a small effect size of $d = 0.45$ measured by Cohen's d . The likelihood scale's pre-and post-test scores were also significant, $t(36) = 2.51, p = 0.008$, with a small effect size of $d = 0.41$ measured by Cohen's d . However, the scores for the FGS bias ($t(36) = 0.74, p = 0.23$) and bias awareness scales ($t(36) = 1.12, p = 0.135$) were not significant. These findings indicate that this sample of advisors did gain more knowledge about HIPs and was more likely to refer students to HIPs after watching the video. However, I did not find that the video intervention helped to lower FGS bias or increase bias awareness in this sample.

Summative Assessment

Throughout the employment of the improvement initiative, it was imperative to continue to assess if the project made significant progress toward our overall goal of increasing FGS participation in HIPs. It was essential to collect student participation data to determine the overall impact of the improvement initiative on our goal. As stated, this project aimed to increase the number of FGS participating in HIPs at WCU by 10% before January 2023. To determine if I have met this goal and have succeeded in providing access to FGS, I measured the number of

first-generation and continuing-generation students participating in internships, service-learning, study abroad, and undergraduate research.

I collected baseline data from the design team members for the Spring 2022 semester before the improvement initiative to determine current activity levels in the four HIPs. The internship measure included only non-required internship courses offered at WCU. I did not include required internship courses because they are not optional for students and will not showcase the optional involvement of FGS versus continuing-generation students. Service-learning involvement included all required and non-required service-learning courses (SLC). There was no easy way to indicate if the course was a requirement for a program. Some class sections are identified as SLC, and others are not. If more than one section was offered, the student might have chosen to take the SLC-designated section. Study Abroad included all full-semester and short-term study abroad excursions under Study Abroad's purview. Finally, undergraduate research included conferences, programming, and grant-associated activities, some of which only happened in the fall or spring semesters. FGS status was obtained from the university data management system and applied to the HIPs records. After collecting the baseline data, I gathered additional participation data from the design team for Summer 2022, Fall 2022, and Spring 2023. The initial pilot of student marketing materials went out in the Summer of 2022 and again in the Fall of 2022. I implemented advisor marketing in Fall 2022. I then compared these to the baseline data to determine the FGS and non-FGS participation change in HIPs.

As noted in Table 15, the percentage of FGS participating in HIPs did increase from the baseline semester of Spring 2022 to the final semester of Spring 2023. For non-required internship courses, the percentage of FGS who participated increased by 7%. For service-learning, there was an increase of 35%, for study abroad 6%, and for undergraduate research,

there was a decline of 2%. The initial outcome of this project was to increase FGS involvement by 10%, which was met for service learning but not for the others. However, there was an apparent positive increase for all four HIPs.

Table 15

FGS and Non-FGS Involvement in HIPs

	Spring 2022			Summer 2022			Fall 2022			Spring 2023		
	FGS	Non FGS	%	FGS	Non FGS	%	FGS	Non FGS	%	FGS	Non FGS	%
Internships	25	33	43%	31	47	40%	6	21	29%	32	64	50%
Service-Learning	243	465	34%	73	155	32%	222	324	69%	67	97	69%
Study Abroad	6	6	50%	1	5	17%	3	13	23%	10	18	56%
UG Research	57	100	57%	0	0	0%	9	21	43%	28	51	55%
TOTAL	331	604	55%	105	207	34%	240	379	63%	137	230	60%

As with every study that is not experimental in design, there is the potential for external factors to impact results. The timing of this study was within a year after COVID-19 had ended. Many virtual options were developed for internships, service-learning, and undergraduate research during this time. It is possible that the addition of these virtual options also helped to increase the involvement of FGS in HIPs.

In addition to driver measures, I evaluated several balance measures to ensure that the marketing initiatives did not unintentionally impact the system negatively. The first balance measure was to ensure I didn't inadvertently decrease the number of non-FGS who participated in HIPs by advertising to FGS. Instead, we see in Table 15 that I had an overall increase for all students participating. In spring 2023, service-learning (SLC) inventoried and redefined the number of service-learning courses, resulting in fewer designated SLC courses. In Spring 2022, n = 708 students participated in SLC courses, but in Spring 2023, only n = 164. The change in the number of designated SLC courses made it difficult to obtain a comparable overall number of involved students between the two semesters. Also, for undergraduate research the data for two

of the four research experiences were not available at the time of this project. Therefore, I was unable to get a full participation headcount for Spring 2023. In the data that is available there was a 50% decline. However, looking at internships and study abroad, there was an increase in both FGS and non-FGS students involved in these practices. For non-required internships, there was a 65.5% increase, for study abroad a 133% increase. I would assume that given the pattern of the other HIPs, service-learning would have followed suit and experienced overall growth as well.

The second balance measure helped me determine if increasing FGS involvement in HIPs caused a decline in the student's overall GPA. I collected all FGS involved in a HIP from Summer 2021 to Spring 2023 ($n = 1091$) and mapped out what semester they had participated in one of the four HIPs. I eliminated students for whom I did not have pre-and post-data available or those who did not have pre-GPA data available that participated consecutively in multiple HIPs over several semesters. This process left 371 viable FGS. When students participated in a HIP early in their academic career and then again toward the end of their career, I included the pre-and post-GPA from the last activity. I reasoned that a student's GPA would be more stable toward the end of their academic career than at the beginning. I then took the cumulative GPA from the semester of the HIP experience and the final cumulative GPA where the student participated in the HIP experience and utilized a paired samples t-test to assess the change.

I wanted to understand if involvement in HIPs for FGS affected their GPA negatively (Table 16 & Table 17). Before participating in the HIP, our population of FGS had a cumulative GPA of $M = 3.4234$ ($SD = 0.50$). After participating in the HIP, it was $M = 3.4262$ ($SD = 0.50$) with a mean difference of 0.003 ($SD = 0.12$). Further analysis with a paired samples T-test revealed that the difference in pre-and post-GPA scores was not significant, $t(369) = -0.442$, $p =$

0.329. These findings indicate that this sample of FGS did not experience a substantial decrease in their cumulative GPA in the semester they participated in a HIP. However, it is essential to note that causation cannot be pinpointed as students' coursework changes from semester to semester, and external factors may be at play, making it hard to compare a GPA from one semester to another. The findings from this study indicate a positive impact on FGS student involvement in HIPs and signify the potential for duplication of these change initiatives at other institutions.

Table 16

GPA Paired Samples Statistics

	Mean	n	Std. Deviation	Std. Error Mean
Pre-GPA	3.4234	370	0.50	0.03
Post-GPA	3.4262	370	0.50	0.03

Table 17

GPA Paired Samples t-test

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Diff.		<i>t</i>	<i>df</i>	One-Sided <i>p</i>
				Lower	Upper			
Pre-GPA								
Post-GPA	0.003	0.12	0.01	-0.015	0.010	-0.442	369	0.329

Recommendations for Leadership Practice and Continued Scholarship

Institutions must continue to look for ways to engage and motivate FGS to be involved in HIPs. The benefits to these students are increased retention and persistence to graduation, the potential for better career outcomes or graduate school enrollment, and academic, personal, and

professional gains. These practices increase students' socioeconomic chances and help higher education become a better value-added experience. For FGS, these HIPs can create higher retention rates, better career outcomes, and academic, personal, and professional gains. Implementing small-scale changes, like the marketing initiatives for this project, can move the needle toward better access for these students.

Student Marketing

The first statement I would like to make is that marketing works! However, marketing works best if it is targeted at the audience's needs. It is crucial to understand and do a thorough analysis of what the audience wants and what the barriers are to their involvement. By conducting a root cause analysis, like the fishbone diagram, an institution can determine what needs to be addressed. It is also imperative to check the findings against the population's reports (Maxwell, 1992). If practitioners decide that the barriers to FGS are finances, time, and other commitments, check this reasoning by conducting focus groups with FGS at the institution. In addition to targeting marketing content, providing enough time to plan out content and a distribution timeline ahead of time is essential. By planning out and writing content during a slower time of year, like summer, there will be time to seek input from others and revise. Also, planning allows the design team to establish a distribution timeline where emails can be sent automatically. The emails can be set up once at the beginning of the semester, making it extremely easy for one individual or a small group to oversee. Arranging the email marketing to be consistent on a bi-weekly or every three-week schedule is best. That may sound like a lot of emails and be overwhelming for students, but in fact, more emails will keep the information current and provide consistency when competing with other information (Campaign Monitor,

n.d.a). Finally, as shown in the student assessment, faculty referrals remain essential for nudging students toward co-curricular activities.

Faculty Marketing

Overwhelmingly faculty are the key influencers for students (Bensimon, 2007; Hurtado, 2011; McCallen & Johnson, 2020). Because of this, it is imperative to market to the influencers in addition to marketing to the target student audience. The findings from this project show that a short video emailed to advisors can increase their knowledge of -- and the likelihood of referring students to -- HIPs. Short instructional videos are easy to produce using programs that most institutions have for classroom instruction, such as Panopto. There are several options for creating animated videos online, and for those who are more adventurous, using student interns or producing these videos as a class project might yield an impactful product. Remembering to keep the video short and targeted for the audience would be essential. The video for this project was made specifically for advisors, included content relevant to advisors, was distributed to advisors, and had an average completion rate of 92.80% for those who viewed it. Overall, the video option is easy to share and can quickly get a targeted message across to faculty and staff.

Leadership Implications

When implementing any change initiative, there are several lessons to learn. For this project, the significant implications are related to choosing the proper framework, navigating the political nature of the context, and keeping equity at the forefront. Being strategic and thoughtful in these matters significantly increases the likelihood for a successful and scalable change initiative.

Utilizing the Improvement Science framework provides one of the most significant lessons learned during this process. Often the plan, do, study, act (PDSA) cycles are used in a

90-day cycle. However, for higher education institutions, the sequence runs in semesters (Crow et al., 2019; Langley et al., 2009). Many HIPs run for the entire semester, making it hard to see the impact until the following semester when new students engage in the activity or re-engage. However, identifying shorter-term benchmarks, like driver measures and smaller PDSA cycles, will help to determine if the change has an impact. For this project specifically, utilizing the read rates, click rates, and website traffics rates acts as an intermediary measure to determine the effect of student marketing and allows practitioners to adjust the marketing as the project proceeds. For the advisor video, measuring the email click and read rates and the video engagement rates is a measurable indicator of engagement and can identify if the video is too long or if the timing of the email is not ideal for the expected response.

To successfully implement a change in a complex organization like a higher education institution, practitioners must choose the correct tools for the job and influence others to collaborate on the change. Creating a marketing initiative that spans multiple HIPs requires identifying who to include in the design and implementation teams. The key is to determine who is a potential friend, foe, ally, or adversary and use those relationships appropriately to have the team work collectively (Stybel & Peabody, 2005). For this initiative, the inclusion of the partner departments like service-learning, study abroad, undergraduate research, career center, and advising centers was essential. Besides these groups, other departments manage HIPs outside the scope. To maintain working relationships with these departments, it was necessary to notify them of my work on the project and why they were omitted. When working with adversaries, like departments, who might have competing interests, you must let them know how your change initiative might positively impact their goals to create synergy between your interests.

For those groups who are friends or allies, you need to consider how to include them in the process. For those who will be true partners, this may mean having them participate in the development of the initiative or facilitating the process (Kotter & Schlesinger, 2008). For my project, I choose to work closely with the other HIPs directors to educate and include them in developing the project. I incorporated them in initial discussions to establish a root cause analysis and driver diagram, using the conversations from these activities to help determine that the project benefited all our departments. In addition, I was sure to be upfront about the level of work that I expected from each partner. For this project, it was minimal since most of the distribution was automated. Minimal effort and an organized outline of the required task commitment made it easier to create buy-in and connection.

In addition to being specific about obligations for the project, I was also aware of the potential political ramifications and territorial debates that often happen amongst departments within the same realm. To combat this, I spent time identifying these departments' goals and understanding the underlying emotion in these conversations (Fisher et al., 1987). When discussing the project with the advising center, there was an initial reservation about emailing all advisors about the project. By examining the implications of sending the email out and their concerns, we were able to work through their initial reservations. The project would not have been accomplished if I had pushed my agenda without considering their emotions and the effect on the department. Only once we could discuss it openly were we able to come to a solution that worked for the project and their department.

The last leadership lesson I learned through this process is that leaders must always keep the equity lens at the forefront of their decisions when doing equity work. In each stage of the implementation process, it is imperative to look back at the original goals and what equity

disparities brought the team to the project. It is easy to get bogged down in the daily tasks but building time to reflect and recenter is crucial to the process. Leaders using the PDSA as the framework creates a reflection period when practitioners can stop “doing” and pause to study and plan the next phase. During these reflections, leaders can incorporate equity conversations into the work. Remaining critical of the institution's HIPs is essential to uncovering policies and procedures that could contribute to inequitable student access (Irwin & Foste, 2021; Macfarlane & Tomlinson, 2017). Maintaining a critical eye significantly increases the likelihood that all voices are heard. By building a change initiative for the most vulnerable population and including student voices in the development, practitioners confirm that the activity will meet the needs of these groups (Stewart & Nicolazzo, 2018). Including students in the design team for a change initiative is vital to ensuring that the experience will meet the needs of these students.

Limitations

First and foremost, attempting to address bias is never easy. This bias is unconscious, and something we don't want to see reflected in our actions makes it especially difficult to tackle. Cultural change in faculty and staff thought about who students are is deeply routed and requires time to change (Applebaum, 2019; Sensoy & DiAngelo, 2017; Tate & Page, 2018). This disquisition project was one year; however, it is a part of the series of improvements I hope to make at WCU. Improvement science focuses on the cyclical movement of the PDSA cycles to continuously move toward overall change. This project is the first phase of my push toward broadening the perspectives of my colleagues when working with students.

Literature also discusses the short-lived effect of bias remediation (Lai et al., 2016; Vuletich & Payne, 2019). Lai et al. (2016) note that short-term interventions do not have a lasting effect on levels of implicit bias. The authors suggest utilizing prolonged everyday

experiences such as participating in a semester-long class on this topic or being close to someone of a different race. Vuletich and Payne (2019) reinterpreted Lai et al.'s (2016) findings to use a context-based view of bias and how this may impact individuals. Their findings focus on the environment and structure of the individuals' surroundings to affect their level of bias. These authors suggest targeting short-term interventions to occur directly before decisions are made. Because of this, I designed the intervention to happen before the advisement period. However, I did not see that this timing impacted the level of bias held by advisors.

The third limitation of this project is that some may feel that these are minor changes that may not have a large enough impact on the problems I tried to address. Creating marketing materials and a short professional development video at one institution may not seem like much. However, working through the improvement science framework can take these small changes, assess their effectiveness and adaptability, and accelerate the improvement using networked communities (Bryk et al., 2017; Crow et al., 2019). The goal is to start small, understand who it works for and in what contexts, and then bring these ideas to scale in similar settings.

Finally, one may be concerned with the narrow focus of this work. By concentrating solely on the lack of information and knowledge about HIPs of students and advisors, I may be ignoring other, just as pressing, concerns. In my root cause analysis, I showcased various topics that could all be addressed for FGS. Some were within my locus of control, and others were not. In making small, measurable changes, it was vital for me to dive deeply into one bone of my diagram and weigh the most pressing concerns for my local context, and for me, this was the level of knowledge surrounding HIPs.

Implications for Future Research

Along with the limitations of the project, some areas need additional research. This year-long project provided ample time to implement the student marketing initiatives over the Summer 2022 and Fall 2022 semesters to see growth in Spring 2023. However, it would have been preferable to implement the advisor video and pre-post-test in more than one semester. If there had been at least two semesters of showcasing the video to advisors, it would have been possible to meet the outcome goal of increasing FGS participation by 10% in HIPs. This would have required at least three academic years (summer, fall, spring), one year for baseline data collection, one year for advisor and student marketing implementation, and one year to collect participation data post-implementation. The extended timeline is necessary mainly because each semester (summer, fall, spring) has different participation rates, so comparing fall and spring participation is a little like comparing apples and oranges. In contrast, comparing fall to fall would be more realistic.

Also, collecting a larger sample of advisors' pre-and post-test scores might showcase some differences in the FGS bias and bias awareness scales. The small number of post-test scores made identifying differences with this sample difficult. One way to encourage more post-test score completion may be to shorten the survey to remove many demographic questions and focus on the faculty/staff and first-gen/non-first-gen questions. In the future, I may send out reminders earlier for the post-test before the end of the semester, which may ensure more participation of faculty advisors.

Conclusion

Encouraging FGS to seek involvement in HIPs is essential to address college students' social mobility and economic equity in the 21st Century. Engagement in these practices allows FGS to connect in meaningful relationships with faculty, community members, and peers. It

encourages growth and development on a personal and professional level. It challenges students to imagine new paths and journeys that were previously unavailable. It creates successful graduates and life-long learners.

Often FGS are people of color, female, or from lower-income homes. Combining these factors places FGS at a unique nexus that requires attention to racism, classism, and gender discrimination to identify barriers. They are often not as involved in HIPs as their peers, which results in inequitable practices and outcomes. Without interventions or changes to the current structure, FGS risk missing out on the academic, personal, and professional gains that continuing-generation students often receive (Demetriou et al., 2017; Finley & McNair, 2013; Kilgo et al., 2015; Kuh, 2008; Miller et al., 2018; O'Donnell et al., 2015; Provencher & Kassel, 2019).

Faculty and staff advisors are central to engaging FGS in this work. They act as mentors, guides, cheerleaders, and support for underrepresented students (Bensimon, 2007; Hurtado, 2011; McCallen & Johnson, 2020). However, when deficit thinking is at the forefront of these conversations, it can have a chilling effect on FGS and their engagement in the campus culture. These interactions can impact their relationships with the students, sense of place within the campus, and involvement in HIPs. At WCU, a predominantly white rural institution, the engagement of FGS is a concern. Part of the challenge at this institution is the unorganized and convoluted structure of HIPs. HIPs are challenging to find and engage with and cumbersome without university administrators' institutional knowledge or cohesive advisement. This adds an additional barrier to students and a necessity to the advisor-student relationship. Students increasingly rely on faculty and staff guidance to navigate the system, placing them in a precarious position for implicit bias to raise its head.

I implemented an email marketing initiative in the Summer 2022 and Fall 2022 semesters to impact how FGS access and utilize HIPs. These emails provided information about HIPs and directed them to a website for more details. Overall, first-generation and non-FGS were receptive to the emails they received, providing high open rates. Those who visited the newly designed website were also likely to find it helpful to spend time on the site and click links that took them to subpages. Targeting email marketing for students seems to work as long as the distribution is consistent and the process is planned ahead of time.

In addition to email marketing, continuing to involve advisors in referring students is essential to their involvement in HIPs. It is clear that faculty, in particular, have a significant influence over students and help them choose activities in which to participate. Sending a marketing video to these individuals helped to ensure they knew the opportunities for students and increased their likelihood of referring students. However, the short video format may not be able to impact unconscious bias and mitigate deficit thinking.

Through Improvement Science methodology, it was clear that the targeted marketing and the advisor marking video positively impacted FGS involvement in HIPs. This project's ultimate objective was to increase FGS involvement in HIPs by 10% by January 2023. I was not able to meet this goal at the 10% level. Still, there were positive findings to showcase that -- for first-generation and continuing-generation students -- these initiatives help promote involvement in HIPs. Participation in these practices can pave the way for students to pursue successful career paths and graduate school enrollment that will have long-term effects on their family's generational mobility (Miller et al., 2018; NACE, 2019a; NACE, 2019b).

Ultimately, I chose to utilize improvement science to guide my project. In so doing, I began an intensive exploration of how a small set of interventions could be designed to impact

FGS, given the local context. The goal was to increase FGS access to HIPs at WCU. Thus, these opportunities offer them academic, personal, and professional gains. Overall, with this project I was able to showcase that these marketing initiatives made an impact on students' involvement and on advisor knowledge and likelihood to refer students. This project can be easily duplicated with institutional partners and appropriate planning time, making an easy way to impact the involvement inequality within HIPs, providing FGS with a pathway to access these meaningful practices.

REFERENCES

- Aaker, J. L., Brumbaugh, A. M., & Grier, S. A. (2008). Nontarget markets and viewer distinctiveness: The impact of target marketing on advertising attitudes. *Journal of Consumer Psychology, 9*(3), 127-140. https://doi.org/10.1207/S15327663JCP0903_1
- Andrews, P. & Meyer, R. G. (2003). Marlowe-Crowne social desirability scale and short form C: Forensic norms. *Journal of Clinical Psychology, 59*(4), 483-492. <https://doi.org/10.1002/jclp.10136>
- Applebaum, B. (2019). Remediating campus climate: Implicit bias training is not enough. *Studies in Philosophy and Education, 38*, 129-141. <https://doi-org.proxy195.nclive.org/10.1007/s11217-018-9644-1>
- Astin, A. W. (1996). Involvement in learning revisited: Lessons we have learned. *Journal of College Student Development, 37*(2), 123-134.
- Astin, A. W. (1997). *What matters in college? Four critical years revisited*. Jossey-Bass.
- Bell, D. (1980). Brown v. Board of Education and the interest-convergence dilemma. *Harvard Law Review, 93*(3), 518-533.
- Bell, D. (2004). *Silent Covenants Brown v. Board of Education and the Unfulfilled Hopes for Racial Reform*. Oxford University Press.
- Bensimon, E. M. (2007). The underestimated significance of practitioner knowledge in the scholarship on student success. *The Review of Higher Education, 30*(4), 441-469. <https://doi.org/10.1353/rhe.2007.0032>
- Bensimon, E. M., & Gray, J. (2020). First-generation equity practitioners: Are they part of the problem? *Change, 52*(2), 69-73. <https://doi.org/10.1080/00091383.2020.1732790>

- Braxton, J. M., Milem, J. F., & Sullivan, A. S. (2000). The influence of active learning on the college student departure process: Towards a revision of Tinto's theory. *Journal of Higher Education*, 71(5), 569-590. <https://doi.org/10.2307/2649260>
- Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2017). *Learning to improve: How America's schools can get better at getting better*. Harvard Education Press.
- Bruton, A., & Robles-Piña, R. A. (2009). Deficit thinking and Hispanic student achievement: Scientific information resources. *Problems of Education in the 21st Century*, 15, 41–48. Retrieved from http://www.scientiasocialis.lt/pec/files/pdf/41-48.Bruton_Vol.15.pdf.
- Campaign Monitor. (n.d.a). *How often should you send out a newsletter*. <https://www.campaignmonitor.com/resources/knowledge-base/how-often-should-you-send-out-a-newsletter/#:~:text=On%20average%2C%20the%20best%20frequency,is%20what%20most%20audiences%20want>
- Campaign Monitor. (n.d.b). *Ultimate email marketing benchmarks for 2022: By industry and day*. <https://www.campaignmonitor.com/resources/guides/email-marketing-benchmarks/>
- Cataldi, E. F., Bennett, C. T., & Chen, X. (2018). *First-generation student: College access, persistence, and postbachelor's outcomes*. National Center for Education Statistics. <https://nces.ed.gov/pubs2018/2018421.pdf>
- Center for FGS Success. (2020). *National data fact sheets* [infographic]. <https://firstgen.naspa.org/journal-and-research/national-data-fact-sheets-on-first-generation-college-students/national-data-fact-sheets>

- Chan, M., Kwon, J., Nguyen, D., Saunders, K.M., Shah, N., Smith, K.M. (2020). *National trends in federal student loan borrowing by income group and first-generation status*. National Center for Education Statistics. <http://doi.org/10.34315/apf1482020>
- Cohen-Vogel, L., Tichnor-Wagner, A., Allen, D., Harrison, C., Kainz, K., Socol, A. R., & Wang, Q. (2015). Implementing educational innovations at scale: Transforming researchers into continuous improvement scientists. *Educational Policy*, 29(1), 257-277. <https://doi.org/10.1177/0895904814560886>
- Colbow, A. J., Cannella, E., Vispoel, W., Morris, C. A., Cederberg, C., Conrad, M., Rice, A. J., & Liu, W. M. (2016). Development of the Classism Attitudinal Profile (CAP). *Journal of Counseling Psychology*, 63(5), 571-585. <http://dx.doi.org.proxy195.nclive.org/10.1037/cou0000169>
- Colins, P. H., & Bilge, S. (2020). *Intersectionality*. John Wiley & Sons.
- Crow, R., Hinnant-Crawford, B. N., & Spaulding, D. T. (Eds.). (2019). *The educational leader's guide to improvement science: Data, design, and cases for reflection*. Myers Education Press.
- Cruz Paul, T. A. (2021). [Unpublished raw data on the percentage of first-generation student participation in HIPs]. Western Carolina University.
- 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>
- Engle, J., & Tinto, V. (2008). *Moving beyond access: College success for low-income, first-generation students*. The Pell Institute. <https://files.eric.ed.gov/fulltext/ED504448.pdf>

- Finley, A., & McNair, T. (2013). *Assessing underserved student's engagement in HIPs*. Association of American Colleges and Universities.
- Fisher, R., Ury, W., & Patton, B. (1987). *Getting to Yes*. Simon & Schuster Sound Ideas.
- Foltz, K. (2020). How did you hear about this event? Analyzing marketing strategies to increase undergraduate attendance at extracurricular events. *Florida Communication Journal*, 48(2), 137-148.
- Fry, R. (2021). *First-generation college graduates lag behind their peers on key economic outcomes*. Pew Research Center. <https://www.pewresearch.org/social-trends/2021/05/18/first-generation-college-graduates-lag-behind-their-peers-on-key-economic-outcomes/>
- Furquim, F., Glasener, K. M., Oster, M., McCall, B. P., & DesJardins, S. L. (2017). Navigating the financial aid process: Borrowing outcomes among first-generation and non-first-generation students. *The ANNALS of the American Academy of Political and Social Science*, 671(1), 69-91. <https://doi.org/10.1177/0002716217698119>
- Gorski, P. (2016). Poverty and the ideological imperative: A call to unhook from deficit and grit ideology and to strive for structural ideology in teacher education. *Journal of Education for Teaching*, 42(4), 378–386. <https://doi.org/10.1080/02607476.2016.1215546>
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological Review*, 102(1), 4-27. <http://dx.doi.org/10.1037/0033-295X.102.1.4>
- Haggis, T. (2006). Pedagogies for diversity: Retaining critical challenge amidst fears of "dumbing down." *Studies in Higher Education*, 31(5), 521–535. <https://doi.org/10.1080/03075070600922709>

- Hembroff, L. A., & Rusz, D. L. (1993). *Minorities and Overseas Studies Programs: Correlates of Differential Participation. Occasional Papers on International Educational Exchange: Research Series 30*. Council on International Educational Exchange, New York, NY.
- Hickman, R. (2009). *In pursuit of egalitarianism and why social mobility cannot get us there*. Compass. <https://www.bl.uk/britishlibrary/~media/bl/global/social-welfare/pdfs/non-secure/i/n/p/in-pursuit-of-egalitarianism-and-why-social-mobility-cannot-get-us-there.pdf>
- Horvat, E. M. (2003). The interactive effects of race and class in educational research: Theoretical insights from the work of Pierre Bourdieu. *Penn GSE Perspectives on Urban Education*, 2(1), 1-25.
- Hurtado, S., Eagan, M. K., Tran, M. C., Newman, C. B., Chang, M. J., & Velasco, P. (2011). "We do science here": Underrepresented students' interactions with faculty in different college contexts. *J Soc Issues*, 67(3), 553-579. <https://doi.org/10.1111/j.1540-4560.2011.01714.x>
- Irwin, L. N., & Foste, Z. (2021). Service-learning and racial capitalism: On the commodification of people of color for white advancement. *The Review of Higher Education*, 44(4), 419-446. <https://doi.org/10.1353/rhe.2021.0008>
- Kilgo, C., A. (2016). *An epistemological revolution: Using quantitative data to critically interrogate high-impact educational practices* [Unpublished doctoral dissertation], University of Iowa, Iowa Research Online. <https://doi.org/10.17077/etd.2xvjjjpt>
- Kilgo, C. A., Ezell Sheets, J. K., & Pascarella, E. T. (2015). The link between HIPs and student learning: Some longitudinal evidence. *Higher Education*, 69(4), 509-525. <https://doi.org/10.1007/s10734-014-9788-z>

- Killpack, T. L., & Melon, L. C. (2016). Toward inclusive STEM classrooms: What personal role do faculty play? *CBE Life Sciences Education*, *15*(3), 1-9. <https://doi.org/10.1187/cbe.16-01-0020>
- Kinzie, J., McCormick, A. C., Gonyea, R. M., Dugan, B., Silberstein, S. (2020). *Assessing quality and equity in HIPs: Comprehensive report*. Indiana University Center for Postsecondary Research.
- Kotter, J. P., & Schlesinger, L. A. (2008). Choosing strategies for change. *Harvard Business Review*. (Best of the HBR).
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Association of American Colleges and Universities.
- Kuh, G. D., & Hu, S. (2001). The effects of student faculty interaction in the 1990s. *Review of Higher Education*, *24*(3), 309-332. <https://doi.org/10.1353/rhe.2001.0005>
- Kuh, G. D. & O'Donnell, K. (2013). Ensuring quality and taking HIPs to scale. *Peer Review*, *15*(2), 32-33.
- Ladson-Billings, G. (1998). Just what is critical race theory and what's it doing in a nice field like education? *International Journal of Qualitative Studies in Education*, *11*(1), 7-24.
- Lai, C. K., Skinner, A. L., Cooley, E., Murrar, S., Brauer, M., Devos, T., Calanchini, J., Xiao, Y. J., Pedram, C., Marshburn, C. K., Simon, S., Blanchar J. C., Joy-Gaba, J. A., Conway, J., Redford, L., Klein, R. A., Roussos, G., Schellhaas, F. M. H., Burns, M., ... Nosek, B. A. (2016). Reducing implicit racial preferences: II intervention effectiveness across time. *Journal of Experimental Psychology: General*, *145*(8), 1-30. <https://escholarship.org/uc/item/5p94z7zn>

- Lamont, M., & Lareau, A. (1988). Cultural capital: Allusions, gaps, and glissandos in recent theoretical developments. *Sociological Theory*, 6(2), 153-168.
<https://www.jstor.org/stable/202113>
- Langley, G. J., Moen, R. D., Nolan, K. M., Nolan, T. W., Norman, C. L., & Provost, L. P. (2009). *The improvement guide* (2nd ed.). Jossey-Bass.
- Lanzi, C. P. (2020). *Gauging implicit bias against first-generation college students*. [Unpublished masters thesis]. California State University, Long Beach. ProQuest Dissertations Publishing.
<https://www.proquest.com/openview/b4a2236753d53cf8d0b71c23f76c305e/1?pq-origsite=gscholar&cbl=44156>
- Littler, J. (2017). *Against meritocracy: Culture, power and myths of mobility*. Routledge.
<https://doi.org/10.4324/9781315712802>
- Lomotey, K. (2018). *The Disquisition at Western Carolina University: The Capstone Experience in the University's EdD Program*. Unpublished manuscript, Western Carolina University, Cullowhee, NC.
- Macfarlane, B., & Tomlinson, M. (2017). Critiques of student engagement. *Higher Education Policy*, 30, 5-21.
- Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, 62(3), 279 – 299.
- McCallen, L. S., & Johnson, H. L. (2020). The role of institutional agents in promoting higher education success among first-generation college students at a public urban university. *Journal of Diversity in Higher Education*, 13(4), 320-332.
<http://dx.doi.org/10.1037/dhe0000143>

- McKay, J., & Devlin, M. (2016). "Low income doesn't mean stupid and destined for failure": Challenging the deficit discourse around students from low SES backgrounds in higher education. *International Journal of Inclusive Education*, 20(4), 347–363.
<https://doi.org/10.1080/13603116.2015.1079273>
- McNamee, S. J. & Miller Jr., R. K. (2009). *The meritocracy myth* (2nd Ed.). Rowman & Littlefield.
- Mijs, J. B. (2021). The paradox of inequality: Income inequality and belief in meritocracy go hand in hand. *Socio-Economic Review*, 19(1), 7-35. <https://doi.org/10.1093/ser/mwy051>
- Milkman, K. L., Akinola, M., & Chugh, D. (2015). What happens before? A field experiment exploring how pay and representation differentially shape bias on the pathway into organizations. *Journal of Applied Psychology*, 100(6), 1678-1712.
<http://dx.doi.org/10.1037/apl0000022>
- Miller, A. L., Rocconi, L. M., & Dumford, A. D. (2018). Focus on the finish line: Does HIP participation influence career plans and early job attainment? *Higher Education*, 75, 489-506. <https://doi.org/10.1007/s10734-017-0151-z>
- Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences of the United States of America*, 109, 16474 –16479.
<http://dx.doi.org/10.1073/pnas.1211286109>
- National Association of Colleges and Employers. (2019a). *Internship & co-op survey report*.
<https://www.naceweb.org/store/2020/internship-and-co-op-report/>
- National Association of Colleges and Employers. (2019b). *2019 student survey report – 4 year*.
<https://www.naceweb.org/store/2019/2019-nace-student-survey-report-four-year-schools/>

- National Survey of Student Engagement (NSSE) (2020). *NSSE 2020 institutional report*.
<https://nsse.indiana.edu/nsse/>
- Núñez, E. M. (2017). *Getting H.I.P. with first-generation college students: Decolonizing the high impact practice movement* [Unpublished doctoral dissertation]. California State University Long Beach. ProQuest Dissertations Publishing.
<https://www.proquest.com/docview/1964752590?pqorigsite=gscholar&fromopenview=true>
- O'Donnell, K., Botelho, J., Brown, J., González, G. M., & Head, W. (2015). Undergraduate research and its impact on student success for underrepresented students. In M. Malachowski, J. M. Osborn, K. K. Karukstis, and E. L. Ambos (Eds.), *Special issue: enhancing and expanding undergraduate research: A systems approach* (pp. 27-38). New Directions for Higher Education. <https://doi-org.proxy195.nclive.org/10.1002/he.20120>
- O'Meara, K. (2021). Leveraging, checking, and structuring faculty discretion to advance full participation. *The Review of Higher Education*, 44(4), 555-585.
<https://doi.org/10.1353/rhe.2021.0012>
- Ott, M., & McTier Jr., T. S. (2020). Faculty attitudes toward college students with criminal records. *Journal of Diversity in Higher Education*, 13(4), 297-308.
<https://doi.org/10.1037/dhe0000138>
- Pascarella, E. T., & Terenzini, P. T. (2005). *How College Affects Students: A Third Decade of Research* (Vol. 2), Jossey-Bass.
- Perez, L. M. (2016). "*Turning the ship towards this new shiny object*": *Exploring the institutional approach to implementation of high impact practice initiatives* [Unpublished doctoral dissertation]. California State University Long Beach. ProQuest Dissertations

Publishing.

<https://www.proquest.com/docview/1842659449?parentSessionId=vXfKa7xRO%2FcxTbjf1jfnsgsf%2BZMrXoF%2B03ui9glOBKs%3D&pq-origsite=summon&accountid=14968>

Perry, S. P., Murphy, M. C., & Dovidio, J. F. (2015). Modern prejudice: Subtle, but unconscious? The role of bias awareness in whites' perceptions of personal and others' biases. *Journal of Experimental Social Psychology, 61*, 64-78.

<https://doi.org/10.1016/j.jesp.2015.06.007>

Provencher, A., & Kassell, R. (2019). HIPs and sophomore retention: Examining the effects of selection bias. *Journal of College Student Retention: Research, Theory & Practice, 21*(2), 221-241. <https://doi.org/10.1177/1521025117697728>

Redford, J., & Hoyer, K. M. (2017). *First-generation and continuing-generation college students: A comparison of high school and postsecondary experiences*. National Center for Education Statistics. <https://nces.ed.gov/pubs2018/2018009.pdf>

Reutterer, T., Mild, A., Natter, M., & Taudes, A. (2006). A dynamic segmentation approach for targeting and customizing direct marketing campaigns. *Journal of Interactive Marketing, 20*(3-4), 43-57. <https://doi.org/10.1002/dir.20066>

Reynolds, W. M. (1982). Development of reliable and valid short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*(1), 119-125.

Roy, G., & Sharma, S. (2021). Measuring the role of factors on website effectiveness using vector autoregressive model. *Journal of Retailing and Consumer Services, 62*, 1-11.

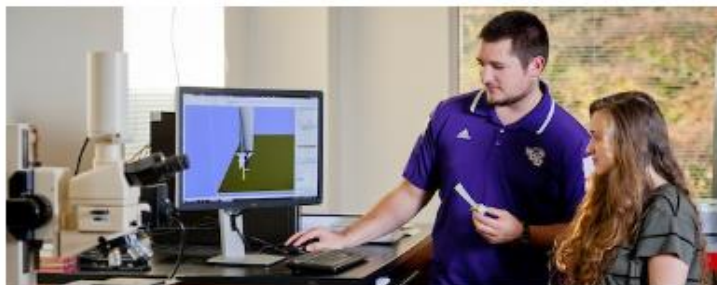
<https://doi.org/10.1016/j.jretconser.2021.102656>

- RTI International. (2019a). *First-generation college students: Demographic characteristics and postsecondary enrollment* [Fact Sheet]. Washington, DC: NASPA.
<https://firstgen.naspa.org/files/dmfile/FactSheet-01.pdf>
- RTI International. (2019b). *Use of student services among freshman first-generation college students* [Fact Sheet]. Washington, DC: NASPA.
https://firstgen.naspa.org/files/dmfile/NASPA_FactSheet-03_FIN.pdf
- RTI International. (2019c). *First-generation college students' employment* [Fact Sheet]. Washington, DC: NASPA. <https://firstgen.naspa.org/files/dmfile/FactSheet-04.pdf>
- Rupp, C., Kern, S., & Helmig, B. (2014). Segmenting nonprofit stakeholders to enable successful relationship marketing: A review. *International Journal of Nonprofit and Voluntary Sector Marketing*, 19(2), 76-91. <https://doi.org/10.1002/nvsm.1492>
- Schalewski, L. (2020). *Student engagement and HIPs: Pathways to social reproduction or social mobility?* [Unpublished doctoral dissertation]. The University of Arizona. U.A. Theses and Dissertations. <http://hdl.handle.net/10150/642049>
- Sensoy, ö., & DiAngelo, R. (2017). “We are all for diversity, but...”: How faculty hiring committees reproduce whiteness and practical suggestions for how they can change. *Harvard Educational Review*, 87(4), 557-580. <https://doi-org.proxy195.nclive.org/10.17763/1943-5045-87.4.557>
- Shulman, L. S., Golde, C. M., Bueschel, A. C., & Garabedian, K. J. (2006). Reclaiming education's doctorate: A critique and a proposal. *Educational Researcher*, 35(3), 25-32.
- Siddiqui, N., & Jessup-Anger, J. (2020). Study abroad programs and their intersection with gender. In *The Wiley Handbook of Gender Equity in Higher Education* (451-467). <https://doi.org/10.1002/9781119257639.ch23>

- Simon, J., & Ainsworth, J. W. (2012). Race and socioeconomic status differences in study abroad participation: The role of habitus, social networks, and cultural capital. *International Scholarly Research Notices*, 2012, 1-21.
- Stewart, D. L., & Nicolazzo, Z. (2018). High impact of [whiteness] on trans* students in postsecondary education. *Equity & Excellence in Education*, 51(2), 132-145.
<https://doi.org/10.1080/10665684.2018.1496046>
- Strada-Gallup (2018). *2018 Strada-Gallup alumni survey: Mentoring college students to success*.
<https://news.gallup.com/reports/244031/2018-strada-gallup-alumni-survey-mentoring-college-students.aspx>
- Stybel, L. J., & Peabody, M. (2005). Friend, foe, ally, adversary...or something else? *MIT Sloan Management Review*, 46(4), 13-16.
- Tate, S. A., & Page, D. (2018). Whiteness and institutional racism: Hiding behind (un)conscious bias. *Ethics and Education*, 13(1), 141-155. <https://doi-org.proxy195.nclive.org/10.1080/17449642.2018.1428718>
- The Pell Institute (2019). *Indicators of higher education equity in the United States: 2019 historical trend report*. http://pellinstitute.org/downloads/publications-Indicators_of_Higher_Education_Equity_in_the_US_2019_Historical_Trend_Report.pdf
- Unverferth, A. R., Talbert-Johnson, C., & Bogard, T. (2012). Perceived barriers for FGS: Reforms to level the terrain. *International Journal of Educational Reform*, 21(4), 238-252. <https://doi.org/10.1177/105678791202100402>
- U. S. Census (2018). *The American community survey*. <https://www.census.gov/programs-surveys/acs>

- U. S. Department of Education (2019). *Profile of undergraduate students: Attendance, distance and remedial education, degree program and field of study, demographics, financial aid, financial literacy, employment, and military status: 2015-16*.
<https://nces.ed.gov/pubs2019/2019467.pdf>
- Vuletich, H. A., & Payne, B. K. (2019). Stability and change in implicit bias. *Psychological Science*, 30(6), 854-862. <https://doi.org/10.1177/0956797619844270>
- Ward, K. (2013). Stereotypes and their effects on first-generation college students. *Ursidae: The Undergraduate Research Journal at the University of Northern Colorado*, 3(2), Article 7.
<http://digscholarship.unco.edu/urj/vol3/iss2/7>
- Western Carolina University. (2019). *Committed to the region, inspired by those we serve*.
https://www.wcu.edu/WebFiles/OIPE/IPE_Fall_2019_Student_Body_Profile.pdf
- Wolniak, G. C., & Engberg, M. E. (2019). Do "high-impact" college experiences affect early career outcomes? *The Review of Higher Education*, 42(3), 825-858.
<https://doi.org/10.1353/rhe.2019.0021>
- York-Anderson, D. & Bowman, S. (1991). Assessing the college knowledge of first-generation and second-generation students. *Journal of College Student Development*, 32(2), 116-122.
- Young, M. (1994). Meritocracy revisited. *Society*, 31, 87-89. <https://doi.org/10.1007/BF02693283>
- Zhao, C., & Kuh, G. D. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education*, 45, 115-138.
<https://doi.org/10.1023/B:RIHE.0000015692.88534.de>
- Zilvinskis, J. (2019). Measuring quality in HIPs. *Higher Education*, 78, 687-709.
<https://doi.org/10.1007/s10734-019-00365-9>

Appendix A: Sample FGS Student Email



Success is More Than Just a Degree

For students who are the first in their families to attend college, high-impact practices (HIPs) can be the key to future success. Did you know that HIPs like internships, study abroad, service-learning, and undergraduate research can provide you with skills that are sought by employers and graduate schools?

- 65% of employers consider international experience important for recruitment
 - More than 3 in 4 employers say they want more emphasis placed on critical thinking, complex problem-solving, written and oral communication, and applied knowledge in real-world settings all skills you can gain by conducting research.
 - 82% of interviewers told Deloitte they prefer applicants with volunteer experience, and 92% say volunteer activities build leadership skills
 - 65% of employers surveyed stated they prefer their candidates to have relevant work experience, like internships
-



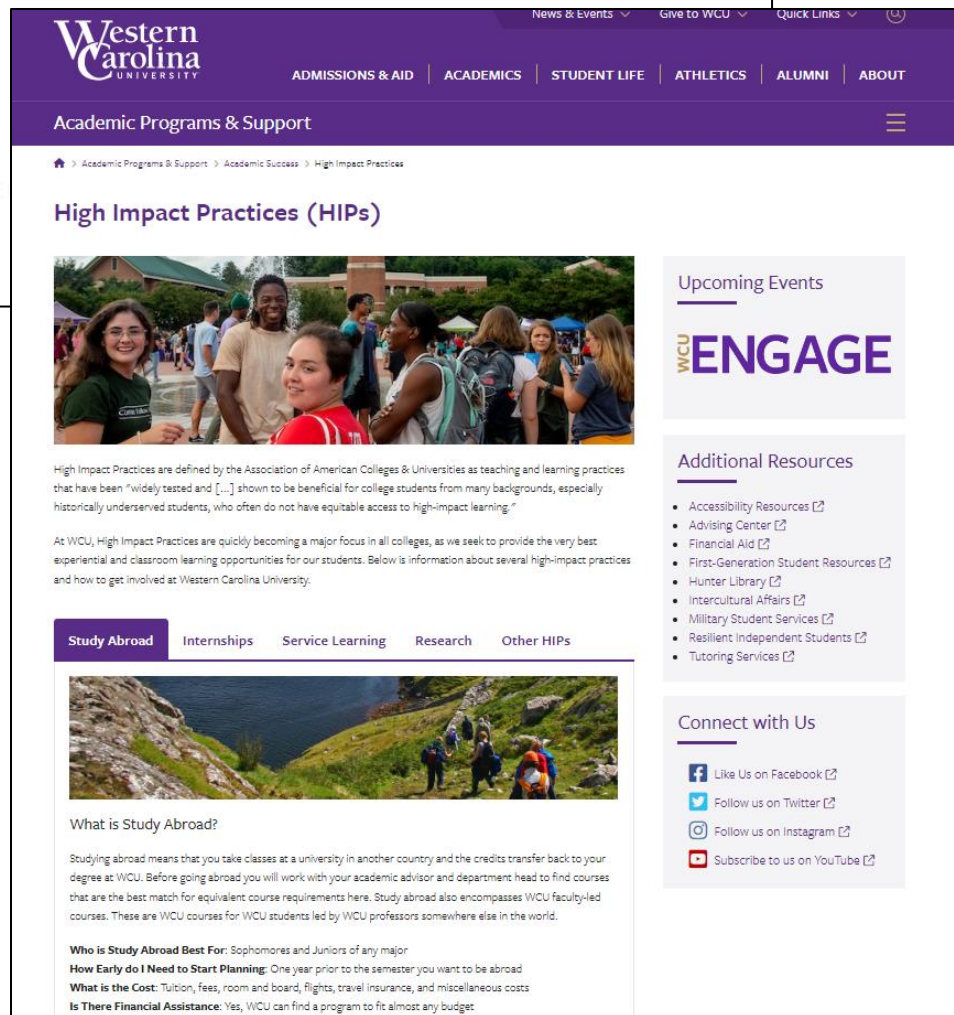
So how do you get involved in these activities? Click the link below to learn more about how to get involved.

Study Abroad has short faculty-led trips for one to eight weeks or full semester or year-long options.

Internships can be semester-long for credit or can be a mini-internship that is project-based.

Service-Learning has one-day service options, week-long alternative break trips, or longer programs you can join.

Appendix B: Pre & Post-Revision of HIPs Website



Appendix C: HIP Study Survey

Administered via Qualtrics to the students who participated in the identified HIPs each semester. The questionnaire is designed to determine how the students heard about the HIP to determine the point of entry.

Questions

Please follow the instructions below as accurately as possible.

1. Please enter your name.
2. Please enter your 92#
3. Have you, or will you, be registered for any classes next semester at WCU?
4. This past semester you participated in Enter Name of HIP here. How did you hear about this opportunity? *(please select all that apply)*
 - a. Received an email with information about the program
 - b. Saw the program advertised on social media
 - i. If selected – Please list the social media site on which you saw the advertisement
 - c. Read about the opportunity on WCU's HIPs website
 - d. Was referred by a faculty member
 - i. If selected – Please list the name of the faculty member
 - e. Was referred by a faculty advisor
 - i. If selected – Please list the name of the faculty advisor
 - f. Was referred by a staff member
 - i. If selected – Please list the name of the staff member
 - g. Was referred by a staff advisor
 - i. If selected – Please list the name of the staff advisor
 - h. Was referred by a family member or friend
 - i. Was a requirement for my major/class/academic program
 - j. Other
 - i. Please describe
5. Who is the name of your faculty advisor? If you do not have a faculty advisor include the name of your academic advisor – Text Input
6. Did your advisor discuss the following opportunities with you during your advising session(s) this semester?
 - a. Internships – Yes/No
 - b. Service-Learning – Yes/No
 - c. Study Abroad – Yes/No
 - d. Undergraduate Research – Yes/No
 - e. Other
 - i. Please tell us what other co-curricular opportunities your advisor discussed with you

Appendix D: Advisor Pre-and Post-Test Survey

Administered via Qualtrics to faculty/staff advisor at the beginning and end of the Fall 2023 semester. The survey is designed to be anonymous and respondents were asked to create a code to compare pre-and post-test results.

Coding Question

Please create a unique ID used to match your pre-and post-test data. Use the first two letters of your first name, last two letters of your last name, and the last two digits of your birth year (example: Juan Smith, 1982 = juth82)

Demographic Questions

Please respond to the following questions as accurately as possible.

1. Are you a faculty advisor or staff advisor?
 - a. Faculty Advisor, Staff Advisor
2. For Faculty Advisors ONLY - How long have you been teaching at a college or university? (*Round down to the nearest year*)
 - a. 0-5 years, 6-10 years, 11+ years
3. For Faculty Advisors ONLY - How long have you been teaching at Western Carolina University? (*Round down to the nearest year.*)
 - a. 0-5 years, 6-10 years, 11+ years
4. For Faculty Advisors ONLY - What is your current job title at Western Carolina University?
 - a. Adjunct, Instructor, Assistant Professor, Associate Professor, Professor
5. For Faculty Advisors ONLY – In what college at Western Carolina University do you primarily teach in?
 - a. Arts & Sciences, Health & Human Science, Engineering & Technology, Fine & Performing Arts, Business, Education & Allied Professions, Hunter Library, Honors College
6. For Staff Advisors ONLY – How long have you worked at Western Carolina University? (*Round down to the nearest year.*)
 - a. 0-5 years, 6-10 years, 11+ years
7. What is the highest degree or level of school you have completed? (*If you are currently enrolled in school, please indicate the highest degree you have received.*)
 - a. Associate degree (e.g., A.A., AS), Bachelor's degree (e.g., B.A., BS), Master's degree (e.g., M.A., MS, Med), Professional degree (e.g., M.D., DDS, DVM), Doctorate (e.g., Ph.D., Ed.D., J.D.)
8. What is your age? (*Please round down to the nearest year*)

- a. Under 30 years old, 30-39 years old, 40-49 years old, 50-59 years old, 60-69 years old, 70+ years old, Prefer Not To Say
- 9. What is your annual household income?
 - a. Less than \$35,000, \$35,000 - \$49,999, \$50,000 - \$74,999, \$75,000 - \$99,999, \$100,000 - \$125,999, \$126,000 - \$149,999, Over \$150,000, Prefer Not To Say
- 10. To which gender identity do you most identify?
 - a. Female, Male, Non-binary/third gender, Transgender, Prefer to self-describe, Prefer Not to Say
- 11. Are you of Hispanic, Latino/a/x, or of Spanish origin?
 - a. Yes/No
- 12. How would you describe yourself?
 - a. American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Bi-or Multi-Racial, Some other race, ethnicity, or origin, Prefer Not To Say
- 13. Were you a first-generation college student at the undergraduate level?
 - a. Yes/No/N.A.
- 14. Were you a first-generation college student at the master's/doctoral level?
 - a. Yes/No/NA

HIPS Knowledge/Likelihood Scales

SCORING: 1-Not Knowledgeable; 2-Slightly Knowledgeable; 3-Somewhat Knowledgeable; 4-Moderately Knowledgeable; 5-Extremely Knowledgeable

SCORING: 1-Extremely Unlikely; 2-Unlikely; 3-Neutral; 4-Likely; 5-Extremely Likely

Please answer the following questions based on your knowledge and experience with these practices at Western Carolina University.

<i>Key for Terms Used Below in the Survey</i>	
FGS	Students who are the first members of their family to attend college
Underrepresented Students	Students from groups traditionally underrepresented in education include racial/ethnic minorities, students with disabilities, and students from lower socioeconomic households.
Non-Traditional Students	Students who do not enter postsecondary education in the same calendar year they finished high school, attend part-time, work full-time while enrolled, are considered financially independent or dependents.

- 15. How knowledgeable are you on referring students to participate in
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?

16. How knowledgeable are you in knowing where to go to find information on
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?
17. How knowledgeable are you about the benefits of
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?
18. How knowledgeable are you about the requirements of participating in
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?
19. How likely are you to refer **students** to participate in
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?
20. How likely are you to refer **FGS** to participate in
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?
21. How likely are you to refer **underrepresented students** to participate in
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?
22. How likely are you to refer **non-traditional students** to participate in
 - a. for-credit internships at WCU?
 - b. Service-learning courses at WCU?
 - c. Study abroad at WCU?
 - d. Undergraduate research at WCU?

Shortened Social Desirability Scale

SCORING: True / False – Answering how the responses below indicate a higher level of social desirability

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to your personality.

23. It is sometimes hard for me to go on with my work if I am not encouraged (F)
24. I sometimes feel resentful when I don't get my way. (F)
25. On a few occasions, I have given up doing something because I thought too little of my ability. (F)
26. There have been times when I felt like rebelling against people in authority even though I knew they were right. (F)
27. No matter who I'm talking to, I'm always a good listener. (T)
28. There have been occasions when I took advantage of someone. (F)
29. I'm always willing to admit it when I make a mistake. (T)
30. I sometimes try to get even rather than forgive and forget. (F)
31. I am always courteous, even to people who are disagreeable. (T)
32. I have never been irked when people expressed ideas very different from my own. (T)
33. There have been times when I was quite jealous of the good fortune of others. (F)
34. I am sometimes irritated by people who ask favors of me. (F)
35. I have never deliberately said something that hurt someone's feelings. (T)

FGS Attitudinal Profile

SCORING: 1-Strongly Disagree; 2-Disagree; 3-Somewhat Disagree; 4-Neither Agree or Disagree; 5-Somewhat Agree; 6-Agree; 7-Strongly Agree

From your perspective as a faculty member, please indicate your level of agreement with the following statements.

36. FGS are not academically prepared for college.
37. FGS are more likely to struggle in school.
38. FGS cannot handle multiple obligations at one time.
39. FGS are more likely not to finish their degree than non-first-gen students.
40. FGS do not have the financial means to participate in activities like study abroad experiences.
41. FGS are not prepared to compete with non-FGS for jobs and graduate school after graduation.
42. FGS go on to graduate school at lower rates than non-FGS.
43. FGS do not have the skills to participate in competitive undergraduate research or internships.
44. FGS do not have the social/cultural capital to participate in HIPs.

Bias Awareness Scale

SCORE: 1-Strongly Disagree; 2-Disagree; 3-Somewhat Disagree; 4-Neither Agree or Disagree; 5-Somewhat Agree; 6-Agree; 7-Strongly Agree

Please indicate your level of agreement with the following statements.

45. Even though I know it's not appropriate, I sometimes feel that I hold unconscious negative attitudes toward FGS.
46. When talking to FGS, I sometimes worry that I am unintentionally acting in a prejudiced way.
47. Even though I like FGS, I still worry that I have unconscious biases toward FGS.
48. I worry that I may be acting in a subtly prejudiced way toward FGS.