

Evaluation of Florida Atlantic University High School

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Foreword

In spring 2017, I received an email asking if NYU Metro Center could evaluate Florida Atlantic University High School (FAUHS). I had heard of FAUHS because of the unique experience it provides some students to graduate with both a high school diploma and a bachelor's degree by age 18 or 19. Prior to learning about FAUHS I had not heard anything like it. My interest was piqued.

After subsequent conversations with the leadership at FAUHS and meetings with key members of my Policy, Research, and Evaluation team at NYU Metro Center, I became convinced that an evaluation of FAUHS—an innovative gifted education experience—could be aligned with the mission work of NYU Metro Center. The rising costs of college made college persistence a hardship for many vulnerable communities, and FAUHS could offer NYU Metro Center a chance to examine an alternative model that features free college to students regardless of socioeconomic background (and, to some degree, because of it).

Other equity questions were also important. The project could allow NYU Metro Center to explore questions of disparity and equitable representation in terms of who gets to take advantage of free college in high school. Were there social, gender, and other gaps to access? If so, what could this program offer in terms of advancing opportunities to learn and to gaining affordable college across lines of difference?

There were also questions about the experience, questions that our partners at FAUHS shared. How did the experience at FAUHS compare to the experience at Florida Atlantic University? Were the high school students as prepared as their university-based peers? Were there other issues worth noting, such as anomalies in the experience by class and gender? And what exactly made the experience work?

Other questions involved curriculum and instruction. What does relevance mean in highly selective environments that aspire to be fully inclusive? Since the program drew from a wide geographic area, there were questions of logistics (e.g., student travel time and its influence on learning outcomes), questions of socioemotional well-being, and of course questions of magic.

By magic, I mean the particular kind of enchantment capable of transforming cultures and climates, establishing not only high expectations and motivation but also the sense of possibility. At FAUHS, this magic seemed to exist intangibly, evoked by an unseen but sure sentiment—as sure as air—that students and everyone involved in the school could achieve. You don't always see magic, but at FAUHS I certainly felt it.

Each of our questions, seen or felt, was essential to NYU Metro Center's desire to take up this evaluation. The questions were necessary guideposts to illuminate a way forward, a pathway of exciting possibility, where public education could be positioned and, thus, seen beside sincere innovation and inquiry. However, innovation or inquiry rarely gets us to utopia, but they can move us steps closer to equity.

The evaluation we conducted has aimed to get closer to equity. It is non-partisan, unbiased, rigorous, and systematic. We asked essential questions of FAUHS and stared hard at its data until answers emerged. We put our answers in conversation with a literature on college access and affordability, gifted education, and educational equity. The process has taken 15 months (give or take a month). After a meticulous process and months of careful and thoughtful analysis, we now invite this opportunity to present our evaluation of FAUHS.

David E. Kirkland, PhD

December 3, 2018

Key Findings

In 2017, the Center for Policy, Research, and Evaluation at New York University's Metropolitan Center for Research on Equity and the Transformation of Schools (Metro Center) contracted with Florida Atlantic University High School (FAUHS) to conduct an evaluation of its concurrent enrollment program.

The purpose of the evaluation was to learn more about FAUHS students including their demographic profile, academic progress, and experiences in the program. Evaluators developed and administered a survey of current FAUHS students to learn more about their learning experiences, sense of belonging, sense of self, academic aspirations, and career objectives. Evaluators also analyzed secondary data provided by both FAUHS and Florida Atlantic University (FAU).

Based on our analysis of both survey and secondary data, we found the following:

Student Demographics

- + Compared to both Broward and Palm Beach school districts, FAUHS enrolled a higher percentage of White and Asian students and a lower percentage of Black and Latinx students
- + FAUHS enrolled no English Language Learners, and three percent of current students had 504 plans, indicating a special need

Academic Trajectories and Progress to Graduation

- + Roughly 45 to 50 percent of recent FAUHS cohorts ultimately earned bachelor's degrees from FAU
- + Among students who did not ultimately graduate from FAU, most tended to leave immediately after high school graduation
- + By the time they graduated from high school, FAUHS students earned 94 college credit hours, on average
- + Compared to the FAU population overall, FAUHS students consistently earned higher grade point averages across all academic colleges at FAU
- + Students aspired to high levels of education and prestigious careers

Socio-Emotional Experiences

- + Compared to a national sample, FAUHS students more often reported feeling depressed and anxious, and were less likely than students nationally to positively rate their emotional health
- + Students' emotional health was negatively correlated to their overall sense of belonging
- + Students' sense of belonging was positively correlated with each institution's (FAUHS and FAU) perceived commitment to diversity

Based on our findings, we recommend the following:

- + Increase student diversity by expanding the recruitment of students of color, English language learners, and students with disabilities
- + Collect data on students' academic and career trajectories, and data on how completing an accelerated high school-college program had an impact on their lives
- + Increase support for students' socio-emotional needs

Initial post-evaluation Initiatives

Introduction

FAU High School (FAUHS) employs a very unique educational model, and the school sought out an independent evaluation of the impact of our program. FAUHS faculty, staff, and students had the privilege of collaboratively working with researchers at NYU's Center for Policy, Research from 2017 to 2018 to examine the impacts of our program on student success. As with most educators, we continually strive to improve, and thus sought our evaluator's recommendations for the future. NYU's "Evaluation of Florida Atlantic University High School" reveals the amazing impact that the FAUHS program has on our students academically along with a few suggestions that our school had already begun to address. Below is a brief summary of the changes our school has implemented since the data collection for this report was completed, which primarily address two of the recommendations.

NYU Recommendation

Increase student diversity by expanding the recruitment of students of color, English language learners, and students with disabilities

FAUHS Response

+ FAUHS aims to mirror the diversity seen in our local community. Our school is located in Boca Raton, FL, which is somewhat less diverse than other areas of Palm Beach or Broward counties. Additionally, FAUHS is a choice school requiring parents to transport their children. This is offset by FAUHS's instructional model, which is focused on providing free books, support services, and college tuition leading to a bachelor's degree.

+ To address the transportation barrier experienced by a portion of our students, we are leveraging a federal gifted and talented grant to purchase TriRail (local mass transit) passes for our students in need.

+ FAUHS recruits students at select schools in Palm Beach and Broward with high percentages of underrepresented students and works with Broward's ROTC program to attract more students of color. These relationship-building efforts have yielded positive results, yet FAUHS is acutely aware of the need to attract more students in need and of color; therefore, have hired a recruitment specialist who will be focused on forging relationships with school counselors and conducting outreach activities in an effort to increase diversity.

NYU Recommendation

Increase support for students' socio-emotional need

FAUHS Response

+ FAUHS recognized that the design of an early-college, fully-immersed program on a college campus leads to additional challenges and stressors. In an effort to address these issues, in 2017, FAU Lab Schools was awarded a \$2.24 million U.S. Department of Education (USDE) Jacob K. Javits Gifted and Talented Students Education Program grant to launch a five-year project aimed at educating gifted and talented students from underserved communities from high school through college at no cost. Known as the Academies of Innovation and Research (AIR), the project aims to increase the number of talented students identified as high need and at risk for education failure who successfully enroll into the early college high school and earn college credits towards a baccalaureate degree.

+ FAU-AIR is building capacity in several ways: 1) additional counseling staff, 2) professional development in social-emotional learning strategies for faculty, and 3) support for students. At the school level, the FAU-AIR project builds school capacity for integrating student support structures aimed at increasing the number and percent of students in its K-8 facility (FAU A.D. Henderson) to qualify and successfully matriculate into its grade 9-12 early college facility (FAU High School or FAU HS) and through FAU. Lastly, the AIR project engages parents more closely as co-partners in supporting students.

+ A high school counselor and a data administrator were hired as part of the FAU-AIR project. In addition, leveraging resources through the state of Florida mental health allocation, a full-time mental health counselor was hired for the specific purpose of working with FAUHS students who are fully immersed on the college campus. This counselor is housed on the university campus located in Counseling and Psychological Services (CAPS) office. The mental health counselor is part of the Comprehensive School Counseling Program design.

+ Recruitment and hiring of near-peer mentors. Thirty-three upperclassmen (juniors and seniors and FAU college students) were hired to be near-peer mentors and to lead small groups of sophomores, who are fully immersed in university courses and environment.

- In surveys students reported that the FAU-AIR activities directly met their needs.

For example, in a survey of sophomores who took part in the near-peer mentoring, a vast majority who responded to the survey (N=125) highly rated their mentoring experience, according to a five-point scale.

Conclusion

FAU High School is committed to reviewing our practices as we scale and replicate our model to ensure the recommendations found throughout the NYU study are embedded and addressed.

Introduction

In 2017, the Center for Policy, Research, and Evaluation at New York University's Metropolitan Center for Research on Equity and the Transformation of Schools (Metro Center) contracted with Florida Atlantic University High School (FAUHS) to conduct an evaluation of its concurrent high school/college enrollment program located in Boca Raton, Florida. The purpose of the evaluation was to learn more about students enrolled in the program and their experiences pursuing their education.

Students enrolled in FAUHS concurrently earn a high school diploma and a bachelor's degree in four to five years. The entering student cohort attends ninth grade in a traditional high school setting in a single building on the FAU campus. In tenth grade, students transition to attend classes full-time at Florida Atlantic University (FAU). After four years of taking classes at FAU and accumulating both high school and college credits, students graduate from high school and can continue their degree program at FAU, transfer to another post-secondary institution, or pursue other pathways.

FAUHS seeks to be “a national exemplary model for school systems and teacher preparation programs improving education for diverse student populations through innovative, faculty-developed research and curriculum” (FAUHS, 2018). To our knowledge, the FAUHS concurrent enrollment program is only program in the United States that offers students the opportunity to concurrently earn a high school diploma and a bachelor's degree.

Students apply to the program during eighth grade and typically begin the program in ninth grade, with a few students entering in tenth or eleventh grade. The application process requires students to submit a resume, personal statement, academic history, recommendation letters, and Accuplacer scores (a college readiness assessment). Students must also participate in a personal interview (FAUHS, 2018). With the exception of a \$550 annual activity fee, students do not pay for tuition, fees, or textbooks while enrolled at the high school. Students begin paying tuition and fees to FAU once they graduate from high school; merit-based scholarships are available to FAUHS graduates who continue at FAU.

Evaluation Questions

We designed the evaluation to answer the following questions:

1. What is the demographic profile of FAUHS students, including their race/ethnicity, gender, gender identity, linguistic heritage/language status, socioeconomic status, and ability status (i.e., gifted, special needs, etc.)? Are the demographics of FAUHS changing over time?
2. How are FAUHS students progressing through the program in terms of credit accumulation and high school/college graduation?
3. How many students leave the FAUHS program before college graduation? At what point(s) do they leave the program, and to what schools (if any) do they go?
4. What are FAUHS students' post-graduation experiences? How many students go on to graduate school and achieve advanced degrees? What professions do they enter? How many students enter the job market after graduation from FAUHS, and what fields do they enter?
5. To what extent do national aptitude and placement exams taken in high school or at FAUHS entry predict students' program achievement?

7. How do the achievement patterns, primarily GPA, of FAUHS students compare with students in FAU's other colleges? How do FAUHS's GPA results compare with the GPA patterns of students across the Florida state university system?
8. What is the experience of students enrolled in the FAUHS program, including their mental health, sense of belonging, cultural affinity, and engagement?

Evaluation Design

We collected and analyzed quantitative data to answer the evaluation questions. Evaluators worked closely with FAUHS and FAU data teams to gather data from each institution, including GPA, Accuplacer scores, socio-economic status, middle school attended, and other variables. We also developed and administered a survey of FAUHS students, to learn about student experiences including their sense of belonging, community and school engagement, and mental health.

Methods

Evaluators designed a survey for current FAUHS students. Two groups of students were eligible to participate in the student survey: 1) current FAUHS students in grades nine through twelve, and 2) students who graduated from FAUHS in 2016 or 2017 and were still enrolled in an undergraduate program at either FAU or another university. Because the survey was designed primarily to learn more about students' experiences as students in the FAUHS program, students graduating in 2016 and 2017 who were not enrolled in any undergraduate program were deemed not eligible for participation. In addition, because surveys were emailed to students' FAU email accounts, we did not know how many responses we might receive from students no longer enrolled in an undergraduate program.

Researchers have identified numerous factors that influence students' experiences in higher education and their persistence to a degree, including race, financial aid status, college readiness, GPA, integration into college life (both academic and social), educational aspirations, and obligations outside of school (e.g., employment or caring for family) (Nora, 2003; Stewart, Lim, & Kim, 2015; Tinto, 1993). Therefore, we surveyed students about socio-emotional factors in their FAUHS experience, including their sense of belonging (both at FAUHS and FAU), self-efficacy, mental health, involvement in the college community, and others.

We selected numerous existing survey measures for the FAUHS student survey. Many survey items were adapted from the National Survey of Student Engagement (NSSE) and the Cooperative Institutional Research Program (CIRP) freshman survey, both surveys of college students. We selected items from these surveys based on their alignment with our research questions, particularly those regarding students' socio-emotional experiences. Throughout this report, we provide comparison data from the 2016 CIRP freshman survey and the 2018 NSSE survey, where applicable. We also used Cohen's (1983) Perceived Stress Scale. The survey instrument and item frequencies are provided in Appendix A.

Prior to administering the survey, we piloted the survey with approximately ten current FAUHS students across all grades. Immediately after completing the survey, students were asked to fill in an online text box with their immediate reactions. We then conducted two small focus groups with the students in the pilot group to gather more detailed feedback about the survey; the evaluation team revised the survey instrument based on this student feedback. We distributed the survey electronically in March 2018, with follow-up reminders sent to non-respondents.

The survey was distributed to a total of 800 current and former students. A total of 432 surveys were returned, for a response rate of 54%. Thirty-two of the 432 respondents were ineligible for participation because they were not currently enrolled in any undergraduate program.

From our survey data, we identified eight scales, which aggregated responses from multiple items that measure a similar construct. The scales used in our analysis were:

- + Sense of belonging
- + Engagement with adults
- + Exploring diversity
- + Institutional equity and diversity
- + Inclusive environment
- + Personal commitment to diversity
- + Preparedness for the future
- + Emotional health

The individual items that comprised each scale, and the statistical characteristics of each scale, are provided in Appendix B.

We conducted a cohort analysis to compare the academic progression of FAUHS students to other students at FAU. Three cohort groups were selected - the FAUHS graduating classes of 2008-09 (Cohort 1), 2013-14 (Cohort 2), and 2015-16 (Cohort 3). The demographic characteristics of each cohort are provided in Table 1.

For Cohorts 1 and 2, we used the age peer group as the FAU comparison group. For example, for the high school class of 2009 (Cohort 1), the cohort comparison entered FAU in fall 2009 because these two groups of students would be approximately the same age.

With Cohort 3, we had enough data to compare FAUHS to two different groups at FAU. We conducted the age peer group comparison as with Cohorts 1 and 2, but also compared the group to the 'entry' cohort, or those students who started at FAU the same semester students started 9th grade at FAUHS. Two comparison groups were chosen for Cohort 3 in order to better describe FAUHS students' academic progression as compared to 'traditional' students.

Table 1: Characteristics of Cohorts 1, 2, and 3

	Cohort 1		Cohort 2		Cohort 3		
	FAUHS	FAU	FAUHS	FAU	FAUHS	FAU (AGE)	FAU (TIME)
N	17	2259	78	2168	116	2222	2252
Female	41%	54%	55%	56%	45%	60%	54%
Male	59%	46%	45%	45%	55%	40%	46%
Asian	6%	5%	13%	4%	12%	6%	4%
Black/African American	6%	14%	17%	13%	15%	14%	12%
Hispanic/Latinx	33%	21%	18%	23%	24%	25%	23%
White	50%	57%	45%	51%	46%	45%	54%
Multiracial	6%	0%	7%	4%	3%	4%	4%
American Indian	0%	<1%	0%	<1%	0%	<1%	<1%
Other/unknown	0%	3%	0%	3%	0%	5%	2%

Data Source: FAU, FAUHS

Literature Review

Dual enrollment programs and other accelerated learning options (including early college, Advanced Placement, and others) offer high school students the opportunity to earn college credit before fully enrolling in a postsecondary institution. Between 2000 and 2010, national participation in dual enrollment increased dramatically. In 2010-11, the most recent data available, nearly 1.4 million American high school students took courses for college credit – the vast majority as part of a dual enrollment program (National Center for Education Statistics, 2013). Dual enrollment, concurrent enrollment¹, and early college programs exist nationwide, and can be administered at the state level, the school district level, or even at individual schools.

Benefits of concurrent enrollment, dual enrollment, and similar programs include the ability to earn college credit while still in high school, building self-confidence to succeed in college, learning alongside like-minded peers, more engaging curriculum, and increases in high school and college graduation (Berger, et al, 2013; Cassidy, Keating, & Young, 2010; Mickens, 2014). Some potential challenges of accelerated learning include underpreparedness for advanced curriculum, the expansion of opportunities beyond the most academically advanced, the perceived stress of succeeding in advanced programs, and the potential loss of high school experiences (Feld & Shusterman, 2015; Howley, et al. 2013; Suldo, et al. 2009).

Many dual enrollment programs limit students to only a handful of credit hours. Besides these common limitations on the number of credit hours than can be earned through dual enrollment, students face additional barriers to accessing accelerated learning opportunities, including cost, grade level, and educator recommendations. A 2014 brief from the Community College League of California conducted a nationwide review of dual and concurrent enrollment policies across states and found that 22 states required families to pay for dual/concurrent enrollment tuition, and that 20 states required students to be in at least 11th grade before enrolling in dual/concurrent credit programs (Mize, 2014). The same report found that as of 2014, 22 states required students to be recommended for dual/concurrent enrollment by a teacher or school administrator. These requirements limit participation on credit bearing college courses to only the most privileged students.

The FAUHS model is unique in that students in the program work towards both a high school diploma and a bachelor's degree simultaneously. The model as currently implemented minimizes some of the common barriers to dual enrollment opportunities, particularly the cost of attendance (students do not pay tuition), elimination of a cap on credit hours, and grade level (students begin earning college credit in 10th grade). After a review of dual enrollment programs, relevant literature, and discussions with FAUHS leadership, we determined that the FAUHS concurrent enrollment model is unique in the United States. It is the only known model nationwide in which all students are concurrently earning both a high school diploma and a bachelor's degree. Thus, research and evaluation on the outcomes, benefits, and challenges of such a model does not yet exist.

1. In relevant literature, researchers and practitioners use several terms to describe programs in which students earn college credits during high school. Arguably the most common term is dual enrollment. A report from the U.S. Department of Education refers to dual enrollment as “an arrangement where students are enrolled in courses that count for both high school and college credit”. However, Dare and Nowicki (2015) opt for the term concurrent enrollment to differentiate between high school students who take a few college-level courses (dual enrollment) from students who are simultaneously fully enrolled in both high school and college (concurrent enrollment). Dual enrollment and concurrent enrollment programs differ considerably from Advanced Placement or CLEP in which students pass an exam to receive college credit.

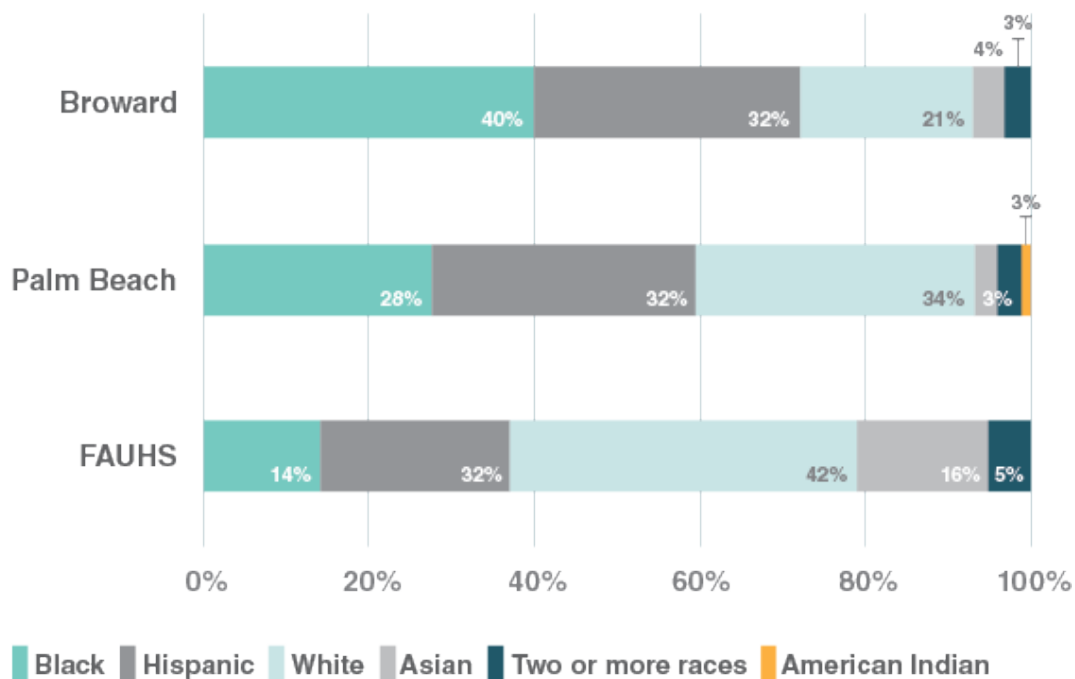
1. Demographic Profile of FAUHS Students

What is the demographic profile of FAUHS students, including their race/ethnicity, gender, gender identity, linguistic heritage/language status, socioeconomic status, and ability status (i.e., gifted, special needs, etc.)? Are the demographics of FAUHS changing over time?

In Fall 2018, Florida Atlantic University High School enrolled 576 students in grades nine through twelve. In addition, 101 FAUHS graduates (from the classes of 2017 and earlier) were still enrolled at FAU as of Spring/Summer 2018. FAUHS enrollment has increased steadily since its founding, from just two students in the class of 2005 to 143 students in the class of 2018. Compared to neighboring school districts, FAUHS enrolled a higher proportion of White and Asian students, and fewer English Language Learners.²

Race. Among FAUHS students in grades nine through twelve, 42 percent were White, 23 percent were Hispanic/Latinx, 16 percent were Asian, 14 percent were Black, and 5 percent were multiracial. Compared to the high school student populations in nearby Broward County and Palm Beach County school districts, FAUHS enrolled a greater percentage of White and Asian students and a smaller percentage of Hispanic/Latinx and Black students (Figure 1).

Figure 1: Racial Composition of FAUHS, Palm Beach, and Broward Schools (Grades 9-12), 2017-18

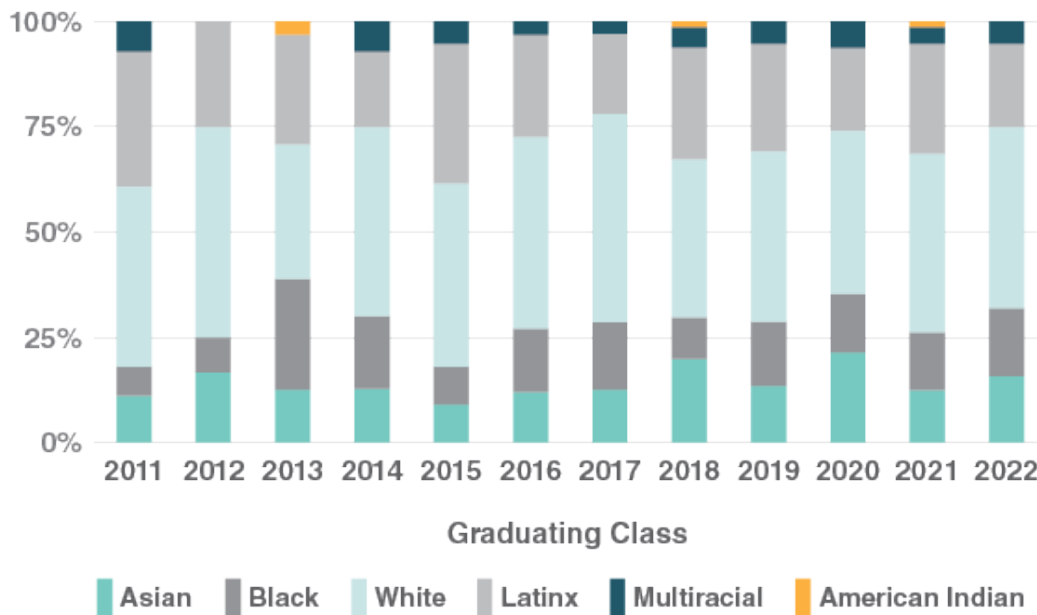


Data Source: Florida Department of Education; FAUHS

2. According to FAUHS, the criteria for ELLs to enter FAUHS is more rigorous than the State of Florida's exit criteria. In other words, for students to enter FAUHS, they must have exceeded the state's standards to be exited from ELL programs. In Florida, the exit criteria for ELLs is a passing score on the state's ACCESS test and scoring a Level 3 or higher on the FSA ELA assessment; FAUHS requires students to score a Level 4 or higher on the FSA ELA

Though the racial composition of each individual class year differed, there has been little overall change in the general racial makeup of FAUHS students over time. In general, White students comprised roughly 40 to 50 percent of each class, and Latinx students comprised roughly 20 to 25 percent. Black students typically comprised about 15 percent of each class, and Asian students about 15 to 20 percent (Figure 2).

Figure 2: Racial composition of FAUHS students over time



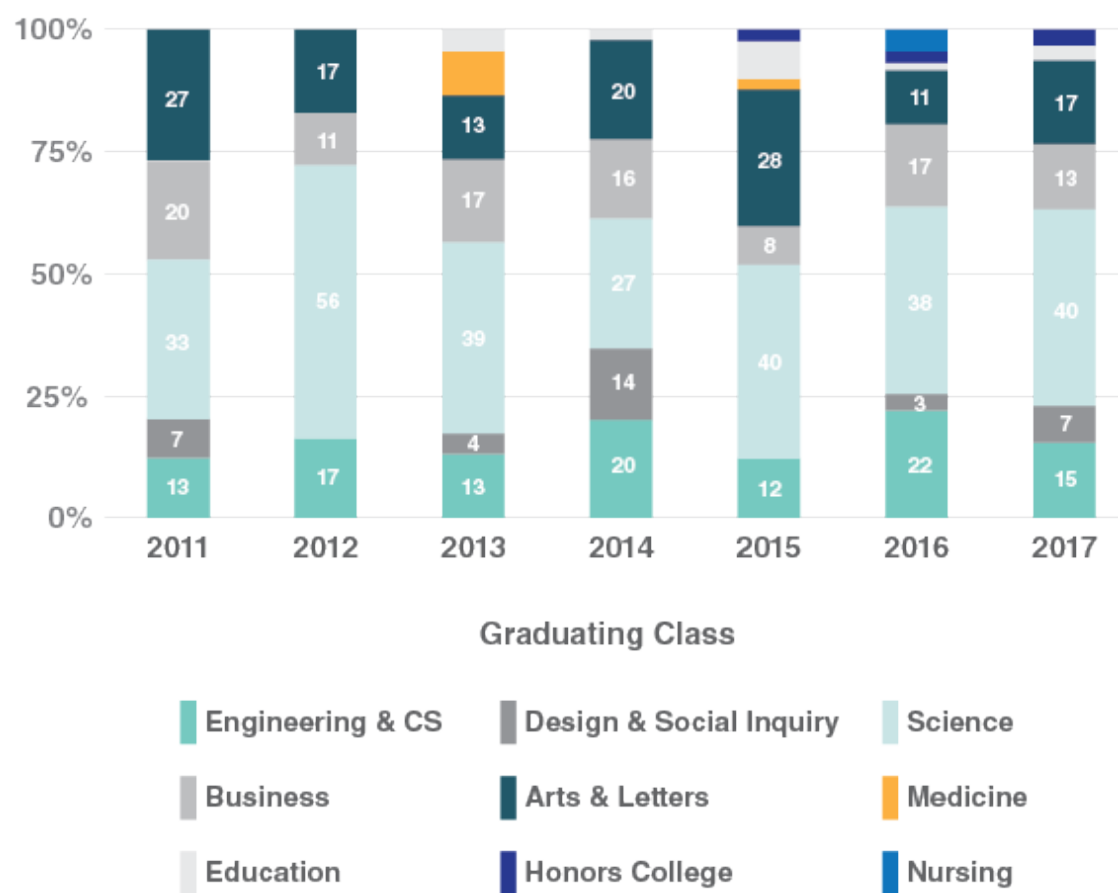
Women comprised 54 percent of the current FAUHS student population, and men comprised 46 percent. FAUHS did not enroll any students identified as English Language Learners (ELLs); in contrast, ELLs comprised 12.4 percent of students in Broward County and 12.9 percent of students in Palm Beach County. Three percent of current students have a 504 plan.

First-generation status. In a survey, 23 percent of FAUHS students self-identified as the first in their families to attend college. In a national sample of first-year college students, 18 percent identified as first-generation college students (Eagan et al., 2017).

Socioeconomic status. Data on students' eligibility for free and reduced-price lunch (FRPL) were available for students in three graduating classes (2013, 2014, and 2018). In each of these years, roughly 30 percent of students were eligible for free and reduced-price lunch. According to self-reported survey data, 13 percent of students had an annual family income of less than \$30,000, and an additional 20 percent reported an annual income between \$30,000 and \$60,000. Twenty-six percent of students reported an annual income more than \$150,000. Among FAUHS graduates, the average income reported on the FAFSA was about \$83,000, though available data were limited.

College major. The majority of FAUHS students chose a major in a STEM-focused college, either the College of Science or the College of Engineering and Computer Science. Though there has been some variation across individual class years, FAUHS students' choice of college has remained relatively stable over time (Figure 3).

Figure 3: Selected college of FAUHS students, by high school graduation year



Compared to FAU students as a whole, FAUHS students more often chose STEM-related majors. Among all FAUHS current students and alumni with declared majors, the most common majors were Biological Science (20 percent), Neuroscience and Behavior (7 percent), and Computer Science (6 percent),

Transportation. Eighteen percent of students lived within five miles of the FAUHS campus. One-third of students lived between 11 and 20 miles from campus, and about a quarter (23 percent) lived more than 20 miles from campus. About half of students (48 percent) had someone else drive them to school, and 39 percent drove themselves. Ten percent of students commuted to school via TriRail.

Middle school attendance. Most FAUHS students attended middle school in either Palm Beach County or Broward County, the two closest school districts. In the FAUHS graduating class of 2018, 35 percent of students attended middle school in Broward County and 44 percent attended middle school in Palm Beach County.

Table 2: Middle school districts attended

Middle School District	Class of 2018	Class of 2019	Class of 2020	Class of 2021
Total Class Size	133	140	141	146
Broward	32% (43)	39% (55)	37% (52)	29% (43)
Palm Beach	41% (54)	42% (59)	37% (52)	38% (56)
A.D. Henderson University School ³	13% (17)	11% (15)	15% (21)	14% (21)
Other Florida districts	<1% (1)	0% (0)	3% (4)	2% (3)
Florida Virtual	26% (34)	24% (33)	17% (24)	18% (26)
Florida Virtual only	6% (8)	2% (3)	3% (4)	4% (6)
No data available	8% (10)	5% (7)	10% (14)	12% (18)

* Percentages do not add to 100 percent because students could be coded with multiple middle school attendance districts. Students counted in 'Florida Virtual' attended a virtual school either alone or alongside attendance in a traditional school district. Students counted as 'Florida Virtual only' only attended school virtually and do not have a record of attending a traditional school district.
Data Source: FAUHS

A.D. Henderson, the K-8 school co-located with FAUHS, sent the most students to FAUHS (74 students). Other middle schools that sent large numbers of students included Florida Virtual School Flex 6-8 (55 students), Florida Virtual School Flex 9-12 (49 students), Don Estridge High Tech Middle School (44 students; Palm Beach County), Lyons Creek Middle School (22 students, Broward County), Eagles Landing Middle School (21 students, Palm Beach County), and Westglades Middle School (20 students, Broward County). Nine percent of students in the classes of 2018 through 2021 had unreported middle school data

3. A.D. Henderson University School is presented in this table because it, along with FAUHS, make up their own school district. A.D. Henderson and FAUHS are not part of either Broward or Palm Beach school districts.

2. Credit Accumulation and Graduation

How are FAUHS students progressing through the program in terms of credit accumulation and high school/college graduation?

By the time FAUHS students complete high school, most have earned a significant number of college credit hours. In the high school graduating class of 2018, 59 percent of students were already classified as at least college juniors and had earned, on average, 94 credit hours at the time of high school graduation. No differences in credit accumulation emerged when comparing students by race, but we found that women in the class of 2018 accumulated more credit hours (98 hours) than men in the same class (88 credit hours).

Though students typically earned about three years' worth of college credit before graduating from high school, some students opted not to continue their education at FAU after graduating from FAUHS. Data for the most recent graduating classes (2012-13 and later) indicates that 45 to 50 percent of FAUHS students ultimately graduate from FAU (Table 3). We found no significant differences in the rate of graduation when comparing students by gender or race.

Table 3: Percent of FAUHS Students, by Class, Graduating from FAU

HS Graduating class	Percent earning Bachelor's degree from FAU	Percent still enrolled as undergraduate at FAU Spring 2018	Percent Retained	Total students
2006-07	36.4%	0.0%	36.4%	11
2007-08	30.0%	30.0%	30.0%	10
2008-09	52.9%	0.0%	52.9%	17
2009-10	61.9%	0.0%	61.9%	21
2010-11	46.4%	0.0%	46.4%	28
2011-12	39.1%	4.3%	43.4%	23
2012-13	51.6%	0.0%	51.6%	31
2013-14	44.9%	7.7%	52.6%	73
2014-15	46.3%	11.3%	57.6%	80
2015-16	47.6%	23.0%	70.6%	126
2016-17 ⁴	30.4%	41.5%	71.9%	135
2017-18	7.7%	86.7%	94.4%	143

Data Source: FAU

In Cohort 1, 53 percent of FAUHS students graduated with a bachelor's from FAU, compared to 55 percent of FAU students entering in fall 2009. In Cohort 2, 45 percent of FAUHS students graduated with a bachelor's degree from FAU, compared to 33 percent of FAU students.

As a reminder, Cohort 3 is comprised of FAUHS students in the high school graduating class of 2016, and two groups of FAU students - those who entered in fall 2016 (who are approximately the same age as the FAU cohort) and students who entered in fall 2012 (who began at FAU the same semester the FAUHS students began at FAUHS). As of the end of the 2018 spring semester, 48 percent of Cohort 3 (the FAUHS cohort) had graduated from FAU. In the FAU group of Cohort 3, 3 percent of the 'age' cohort had graduated, and 51 percent of the 'time' cohort had graduated. This data indicates that the current graduation rate of this FAUHS class is comparable to the graduation rate of students who are approximately four years their senior. Compared to students who are around their own age, a far greater percentage of FAUHS students had earned college degrees by spring 2018. Many of the students analyzed in Cohort 3 are still enrolled at FAU, so follow-up analyses should be conducted to assess the rates of graduation among this group.

Table 4: Graduation rates as of Spring 2018, by cohort

	FAUHS	FAU
Cohort 1	53%	55%
Cohort 2	45%	33%
Cohort 3 (Age)	48%	37%
Cohort 3 (Time)		51%

Data Source: FAU

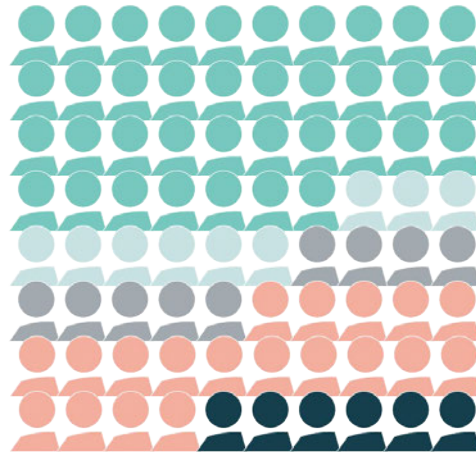
4. Graduation rates for the classes of 2016-17 and 2017-18 are lower because they are recent high school graduates and many are still enrolled at FAU.

3. Transfers and Attrition

*How many students leave the FAUHS program before college graduation?
At what point(s) do they leave the program, and to what schools do they go?*

Among students who left the program before graduating with a bachelor's degree from FAU, most left immediately after graduating from high school. Across recent graduating classes, roughly one in five students left after four years, when students graduate from high school. Roughly one in ten students in each cohort left the program prior to high school graduation.

In the high school class of 2015...



37 graduated from FAU

9 are still enrolled

9 left before HS graduation

19 left immediately after HS graduation

6 left before graduating FAU

Table 5: Graduation and attrition of FAUHS students

HS Graduating Class	N	Did not or have not graduated from FAU				Graduated from FAU
		% leaving before HS graduation	% leaving immediately after HS graduation	% leaving before FAU graduation	% still enrolled as of Spring 2018	% graduated from FAU
2012	23	0%	30%	26%	4%	39%
2013	31	13%	19%	16%	0%	52%
2014	78	9%	27%	12%	8%	45%
2015	80	11%	24%	8%	11%	46%
2016	126	9%	18%	2%	23%	48%
2017	135	9%	17%	2%	41%	30%
2018	143	6%	N/A	N/A	87%	9%

Data Source: FAU

Transfer institutions. There is extremely limited data available on where students go after transferring out of FAU. The little data that are available suggests that students who transfer out of FAU prior to earning a bachelor's degree tend to go to another university in Florida, especially the University of Florida and the University of Central Florida.

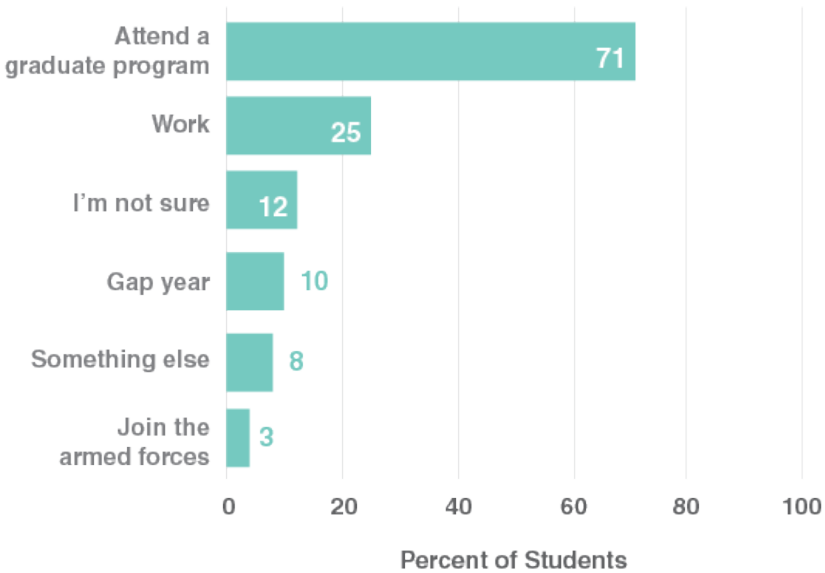
4. Post-Graduation Education and Employment

*What are FAUHS students’ post-graduation experiences?
How many students go on to graduate school and achieve advanced degrees?
What professions do they enter? How many students enter the job market
after graduation from FAUHS, and what fields do they enter?*

Survey results indicated that FAUHS students had high educational and career aspirations. However, data on students’ actual academic and career pathways were very limited. Less is known about the actual trajectories of students, including the schools to which they go (either as undergraduate transfers or as graduate students) or the type of career fields they actually enter.

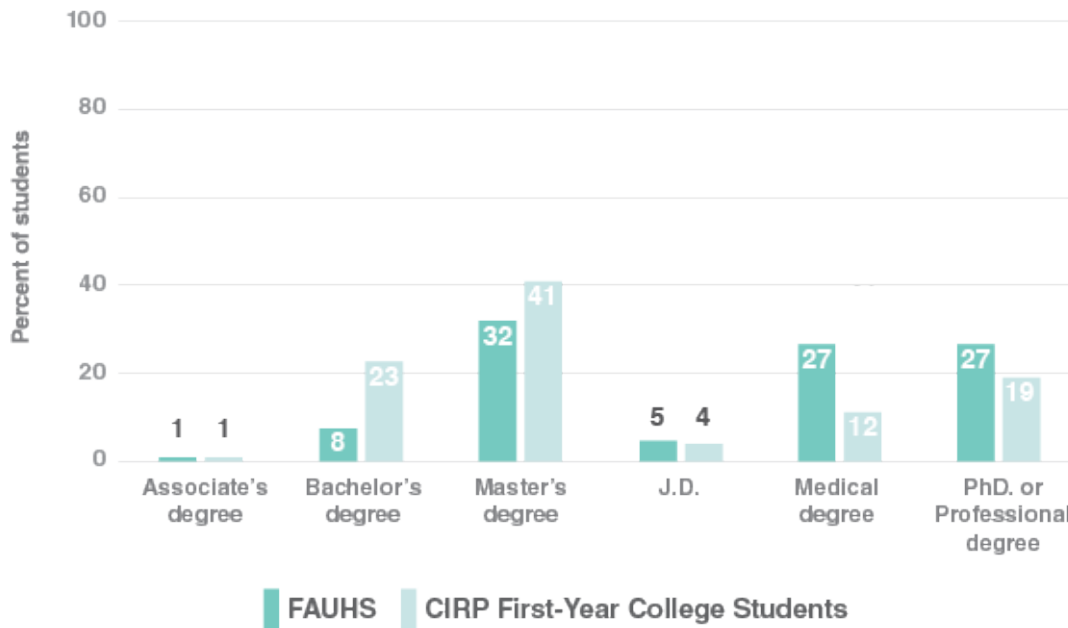
Educational and career aspirations. Eighty-nine percent of FAUHS survey respondents intended to earn their bachelor’s degree from FAU, and the majority of these respondents (71 percent) planned to attend a graduate program immediately after college graduation. Compared to a national sample of first-year college students, FAUHS students reported higher educational aspirations. Fifty-four percent of FAUHS students planned to earn either a medical degree (M.D., D.V.M.) or a doctorate, compared to 31 percent of first-year college students (Eagan et al., 2017).

Figure 4: Post-graduation plans



Responses do not add to 100 percent because respondents could select more than one answer choice.

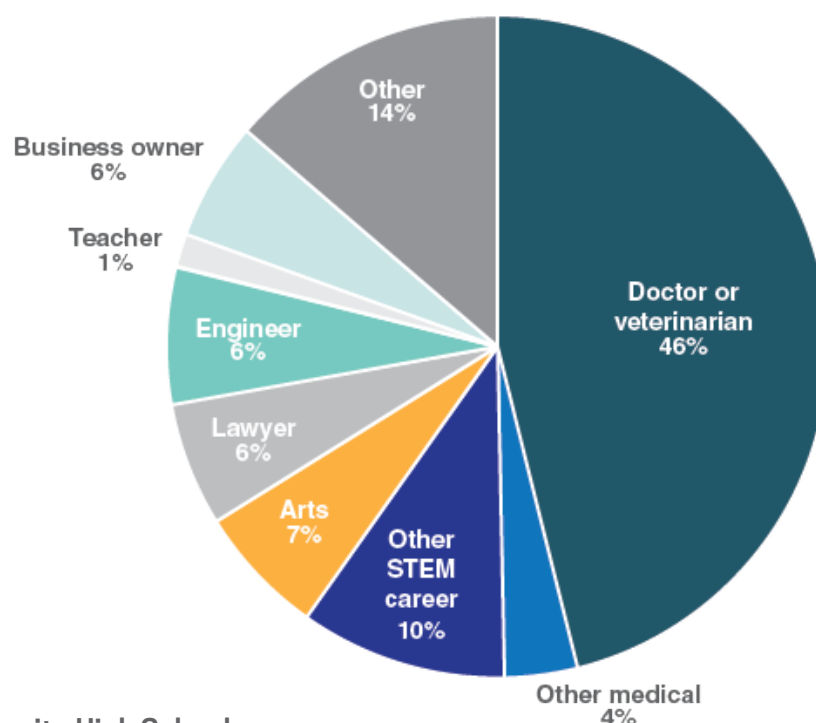
Figure 5:
Degree aspirations



Overall, 89 percent of survey respondents planned to earn their bachelor's degree from FAU. This number was highest among ninth grade respondents and decreased for each subsequent grade. Among 9th graders, 94 percent planned to earn their bachelor's from FAU, compared to 74 percent of 12th graders. This data does not necessarily mean that students' desire to earn a bachelor's degree from FAU decreases over time. Rather, it reflects students' current sentiments about ultimately graduating from FAU.

More than one-third of FAUHS survey respondents reported that they did not yet know what type of job they would have at age 30. Of the two-thirds of respondents with a job title in mind, most planned to pursue a career in a STEM field. Forty-six percent planned to be a medical doctor or veterinarian, 6 percent aspired to be engineers, and 10 percent planned to pursue another STEM-related career. Six percent of students planned to have a career in law, and seven percent planned a career in the arts (e.g., author).

Figure 6: Anticipated careers of FAUHS survey respondents

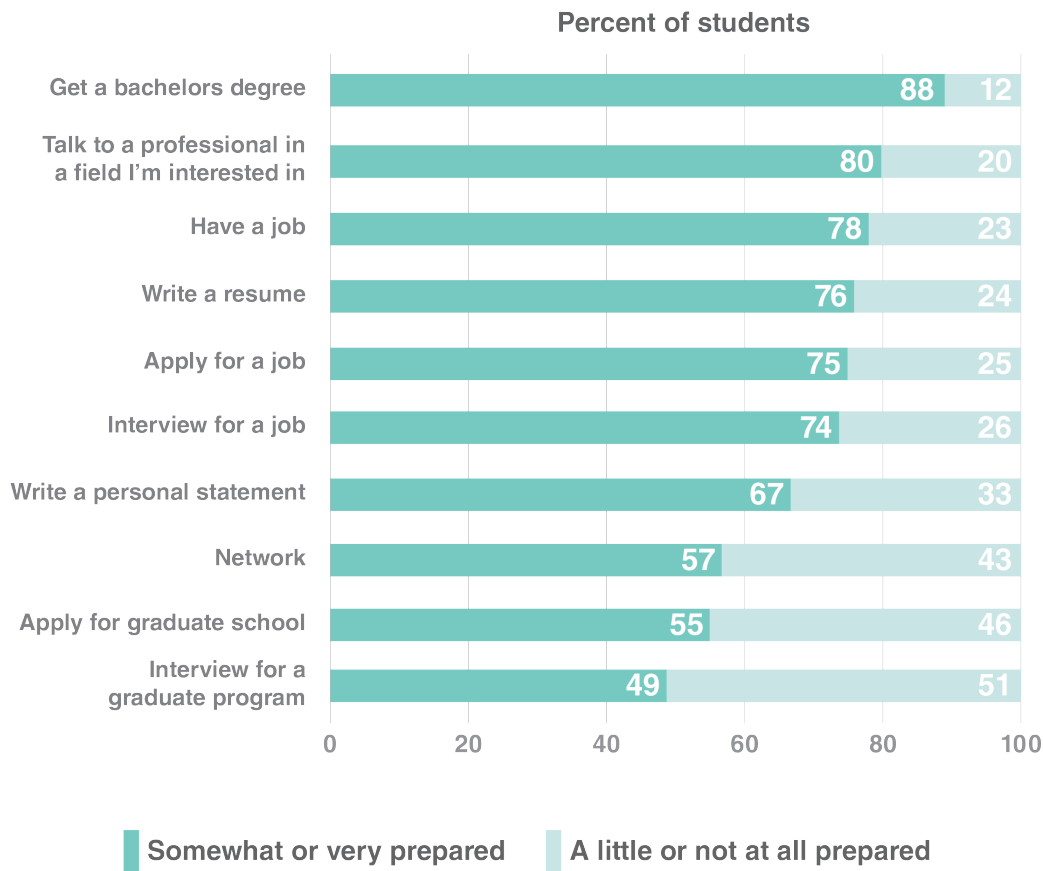


Continuing education. There is limited data on students’ educational trajectories after graduating from FAU. Continuing institution data was only available for 44 total FAUHS graduates; these data suggested that FAUHS students who ultimately graduated from FAU tended to stay in Florida, though less often than FAUHS students who transferred to other institutions.

Some FAUHS students who graduated from FAU continued their education at FAU. Across all class years, 256 FAUHS students earned bachelor’s degrees from FAU. Of these graduates, 24 (9 percent) completed graduate degrees at FAU; 22 students earned master’s degrees and two earned doctorates.

Preparedness for the future. Based on survey responses, students felt most prepared to get a bachelor’s degree (88 percent felt at least somewhat prepared), talk to a professional in a field of interest (80 percent), and have a job (78 percent). Students felt relatively less prepared to interview for graduate programs (49 percent), apply to graduate school (55 percent), and network (57 percent).

Figure 7: Preparedness for the future



5. Correlation Between High School Exams and College Achievement

To what extent do national aptitude and placement exams taken in high school or at FAUHS entry predict students’ program achievement?

Accuplacer data (including scores on the sentence skills, elementary algebra, and reading comprehension tests) were available for the FAUHS classes of 2018, 2019, and 2020. We found small but significant positive correlations between scores on the reading comprehension ($r=0.20$; $p=0.02$) and sentence skills ($r=0.18$; $p=0.04$) tests and student grade point average. Student scores on the Accuplacer elementary algebra assessment were not correlated with grade point average (Table 6).

Table 6: Correlation of Accuplacer scores and GPA

Accuplacer Test	Pearson’s R	<i>p</i>
Reading Comprehension	0.20	0.02*
Sentence Skills	0.18	0.04*
Elementary Algebra	0.08	0.35

*Correlation is statistically significant at $p=0.05$

Multiple regression analysis found that none of the three Accuplacer tests were predictive of students’ grade point average (Table 7). Gender was the only predictive variable in the regression model.

Table 7: Regression Model 1 - Predictiveness of Accuplacer scores on grade point average

Model 1	R ²	B	SE B	Beta	t	p
Dependent Variable Course History GPA						
Independent variables	0.127					
Accuplacer Elementary Algebra		0.001	0.001	0.065	0.761	0.448
Accuplacer Reading Comprehension		0.004	0.002	0.169	1.763	0.080
Accuplacer Sentence Skills		0.003	0.002	0.107	1.212	0.228
Race 0 = White / Asian 1 = Black / Latinx		-0.017	0.052	-0.027	-0.324	0.746
Gender 0 = Male 1 = Female		0.170	0.052	0.273	3.300	0.001*

PSAT scores (including reading, writing, math, and total score) were available for the classes of 2017, 2018, 2019, and 2020. We found significant positive correlations between total PSAT score ($r=0.43$; $p=0.000$), PSAT reading score ($r=0.38$; $p=0.000$), PSAT writing score ($r=0.32$; $p=0.000$) and PSAT math score ($r=0.39$; $p=0.000$) and student grade point average (Table 8).

Table 8: Correlation of PSAT scores and GPA

PSAT Test	Pearson's R	p
Reading	0.38	0.000*
Math	0.39	0.000*
Writing	0.32	0.000*
Total Score	0.43	0.000*

*Correlation is statistically significant at $p=0.05$

Multiple regression analysis found that students' PSAT reading score, PSAT math score, gender, and race were predictive of grade point average; the model explained 25 percent of the variability in the data. Increases in PSAT reading and math scores were predictive of higher grade point averages. Being Black or Latinx was predictive of a lower grade point average, and being female was predictive of a higher grade point average. Students' PSAT writing score was not predictive of grade point average.

Table 9: Regression Model 2 - Predictiveness of PSAT scores on grade point average

Model 2	R ²	B	SE B	Beta	t	p
<i>Dependent Variable</i>						
Course History GPA						
Independent variables	0.250					
PSAT Reading		0.016	0.006	0.199	2.453	0.015*
PSAT Writing		-0.003	0.006	-0.430	-0.516	0.606
PSAT Math		0.026	0.006	0.330	4.456	0.000*
Race		-0.075	0.035	-1.120	-2.132	0.034*
0 = White / Asian						
1 = Black / Latinx		0.143	0.036	0.233	4.029	0.000*
Gender						
0 = Male 1 = Female						

These analyses illustrate the predictive properties of the Accuplacer and PSAT tests on students' grade point average. However, these analyses were limited by using students' overall GPA as a dependent variable, rather than students' grades in subjects corresponding to the individual Accuplacer or PSAT tests (English and math). Further analyses could be conducted to measure each test's predictive properties on grades in specific courses.

These analyses, though limited, suggest that the PSAT has a greater predictive value on students' overall academic performance (as measured by GPA) than the Accuplacer. Based on these findings, we recommend lifting the requirement that prospective students take the Accuplacer assessment. Because our evaluation found that the PSAT is a predictor of academic success, the PSAT could be administered as an alternative or replacement assessment measure for the Accuplacer. Other potential measures include scores on state tests, middle school grades, SAT scores, and ACT scores, though the predictive validity of these measures was not analyzed for this evaluation.

6. FAUHS Student Achievement Relative to Other High School and College Students

How do the achievement patterns, primarily GPA, of FAUHS students compare with students in FAU's other colleges? How do FAUHS's GPA results compare with the GPA patterns of students across the Florida state university system?

Academic comparison to other FAU students. Across all colleges and all class years, FAUHS students earned an average GPA of 3.2, compared to 2.7 for all FAU students across all colleges. Within each college, FAUHS students earned higher grade point averages than FAU students in the same college. The average GPAs of FAUHS students in all colleges were roughly similar to the average GPA earned by students in the FAU Honors College (3.3).

Table 10: Comparison of average GPAs, by college, of FAUHS students and FAU students

College	FAUHS Students	FAU Students
Arts and Letters	3.4	2.8
Business	3.3	2.7
Design and Social Inquiry	3.3	2.7
Education	3.3	2.8
Engineering and Computer Science	3.3	2.6
Honors College	N/A (<10)	3.3
Nursing	N/A (<10)	2.8
Science	3.5	2.7
Undecided	3.2	2.1

SAT score comparison. Across all class years, FAUHS students earned an average SAT score of 1353 (n=221). This average score is higher than the average SAT score across the entire Florida university system for first-time freshmen in 2017 (1266) (Table 11).

Table 11: Comparison of SAT scores in the Florida university system

School	Average SAT Score
New College of Florida	1494
<i>FAUHS</i>	<i>1353</i>
University of Florida	1331
Florida Atlantic University	1324
University of Central Florida	1316
Florida State University	1290
University of North Florida	1275
Florida Polytechnic University	1269
University of Southern Florida	1267
<i>University system</i>	<i>1266</i>
Florida International University	1196
University of West Florida	1161
Florida Gulf Coast University	1151
Florida A&M University	1078

Data for Florida colleges and universities reflect averages scores for first-time-in-college (FTIC) freshmen in 2017.

High school assessment comparisons. On the Florida Standards Assessments (FSA), a greater proportion of FAUHS students scored at or above Level 3 (satisfactory) compared to students in Broward County, Palm Beach County, and statewide (Table 12). All FAUHS students earned a satisfactory score, compared to just over half of other high school students. Similarly, all FAUHS students scored a Level 3 or higher on the Biology end-of-course exam, compared to about two-thirds of students in the other groups.

Table 12: Comparison of FAUHS and Florida High School Students

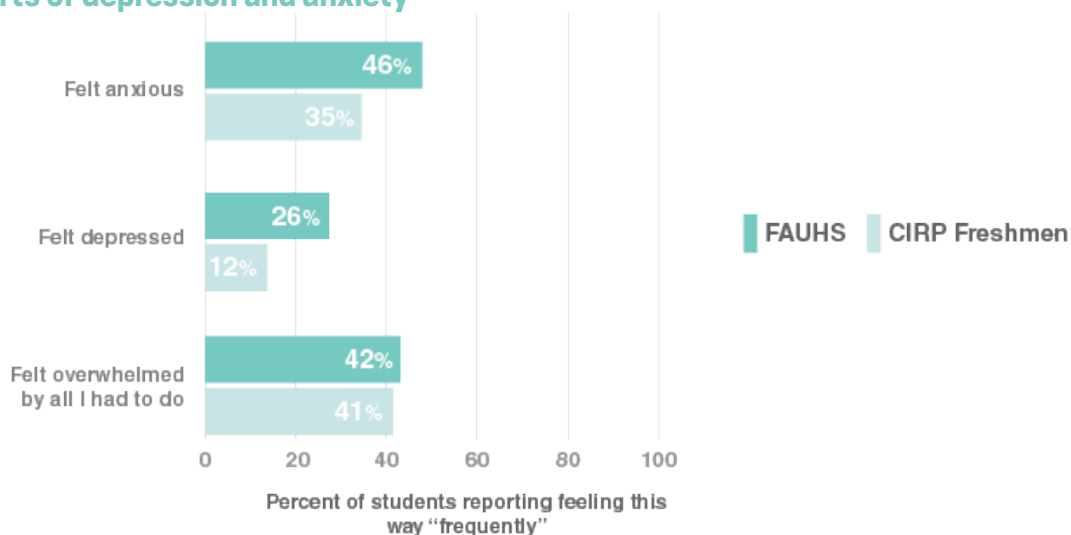
	% Level 3+			
	FAUHS	Broward	Palm Beach	Florida
10th grade ELA (Spring 2018) ⁵	100%	53%	55%	53%
Biology I EOC (Spring 2018) ⁶	100%	63%	68%	65%
Geometry EOC (Fall 2017 Spring 2018)	100%	57%	57%	57%

7. Socio-emotional Experiences of FAUHS Students

What is the experience of students enrolled in the FAUHS program, including their mental health, sense of belonging, cultural affinity, and engagement?

Emotional and mental health. Overall, FAUHS students reported high levels of general stress and anxiety. Sixty-three percent of FAUHS students often felt nervous and stressed, and 31 percent felt that difficulties were piling up so insistently they could not be overcome (Figure 9). Compared to a national sample of first-year college students (CIRP, 2016), FAUHS students more often reported feeling depressed or anxious. One-quarter (26 percent) of FAUHS survey respondents and 12 percent of a national sample frequently felt depressed. Similarly, 46 percent of FAUHS frequently felt anxious, compared to 35 percent of the national sample (Figure 8).

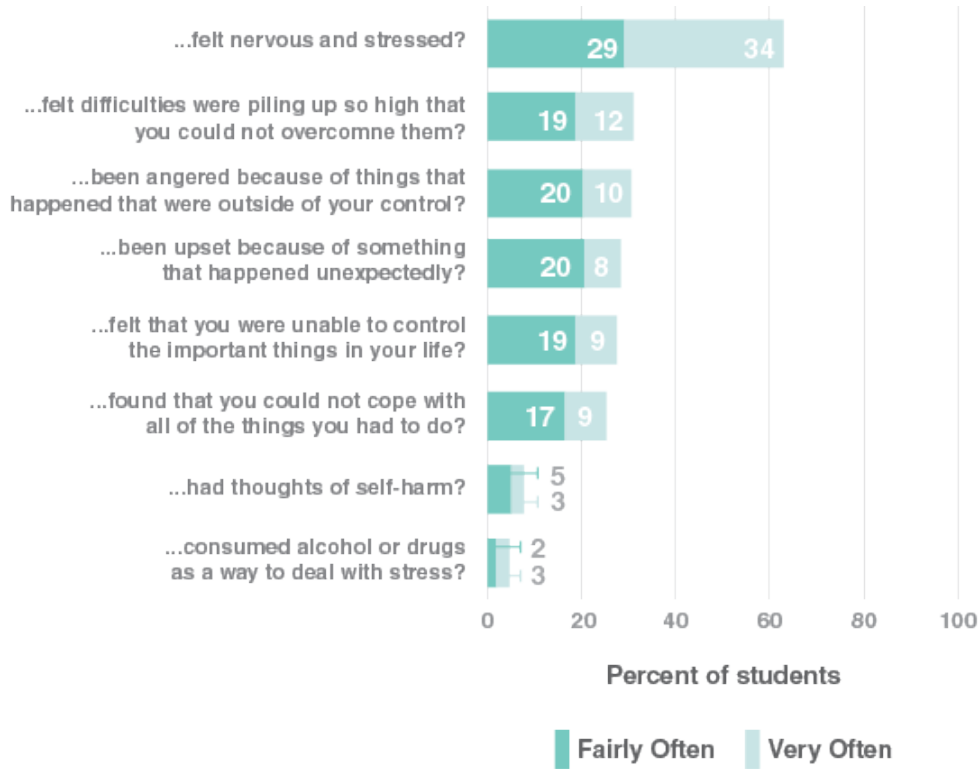
Figure 8: Student reports of depression and anxiety



5 http://www.fldoe.org/core/fileparse.php/Grade_10/urlt/1ELA3-10DistrictComp18.xls

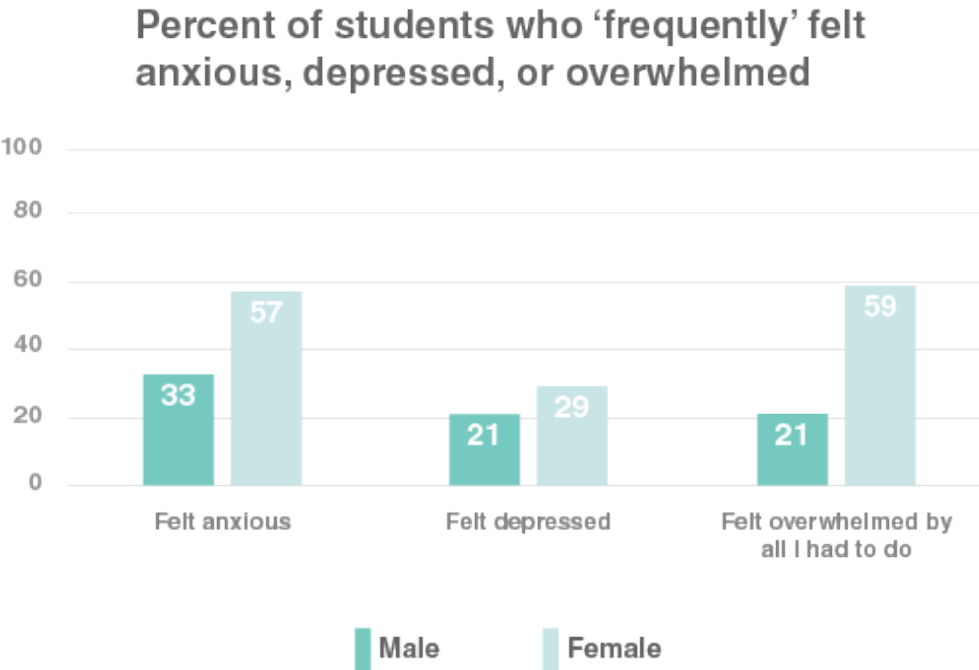
6 <http://www.fldoe.org/core/fileparse.php/5668/urlt/53Bio1SRDSpring18.xls>

Figure 9: Emotional health of FAUHS students



Young women attending FAUHS felt significantly more anxious, depressed, and overwhelmed than young men. Nearly 60 percent of women reported feeling frequently overwhelmed by everything they had to do, compared to 21 percent of men (Figure 10). Almost all women responding to the survey (98 percent) and 89 percent of men reported feeling overwhelmed at least occasionally.

Figure 10: Emotional health of men and women attending FAUHS

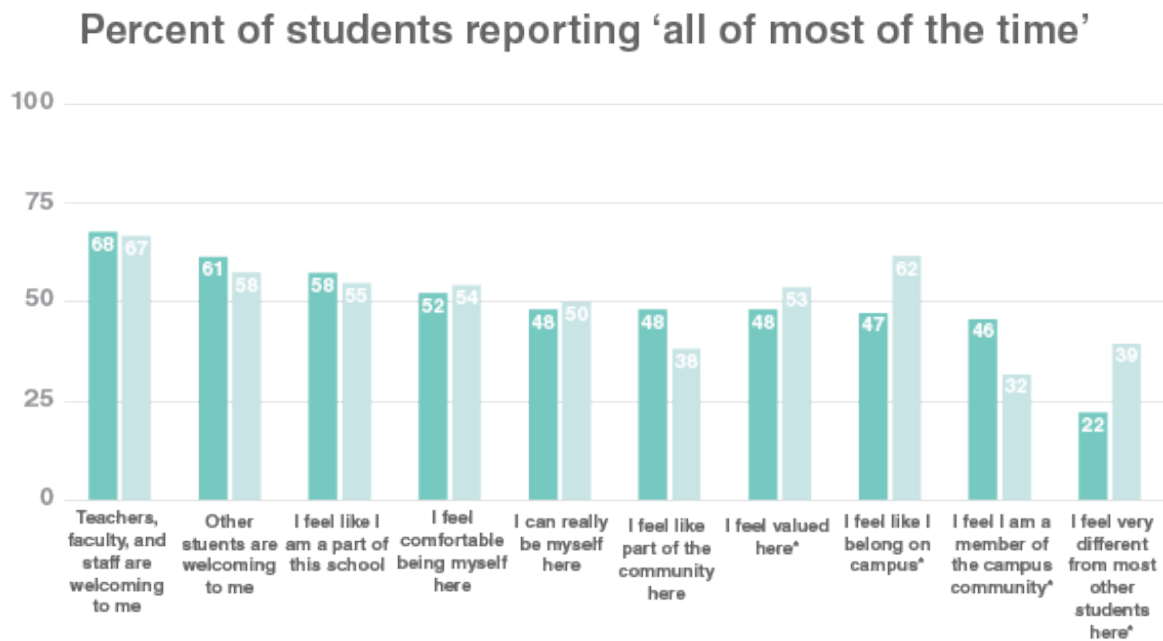


Student emotional health was significantly negatively correlated with their sense of belonging at both the high school and university campuses (FAUHS: $r=-0.311$, $p=0.000$; FAU: $r=-0.245$, $p=0.000$).

Sense of belonging. Students reported on their sense of belonging both at the FAUHS campus and at FAU. In general, students at both institutions felt a similar sense of belonging. On a scale of 1 (belonging rarely or never) to 3 (belonging all or most of the time) students averaged 2.3 for FAUHS and 2.4 for FAU.

Though students overall felt a similar sense of belonging at both FAUHS and FAU, individual survey items showed notable differences in the student experience at the high school as compared to the university. Students felt more a part of the school community at FAUHS compared to FAU; 46 percent of respondents felt like part of the FAUHS community nearly all the time, compared to 32 percent in the FAU community. Students also felt more different from other students at FAU compared to FAUHS. However, in a somewhat contradictory finding, more students felt like they belonged at the FAU campus than the FAUHS campus; 47 percent felt they always belonged at the FAUHS campus compared to 62 percent at FAU. These findings are interesting because they highlight differences in how students feel they belong at the high school campus as compared to the university campus.

Figure 11: Sense of Belonging

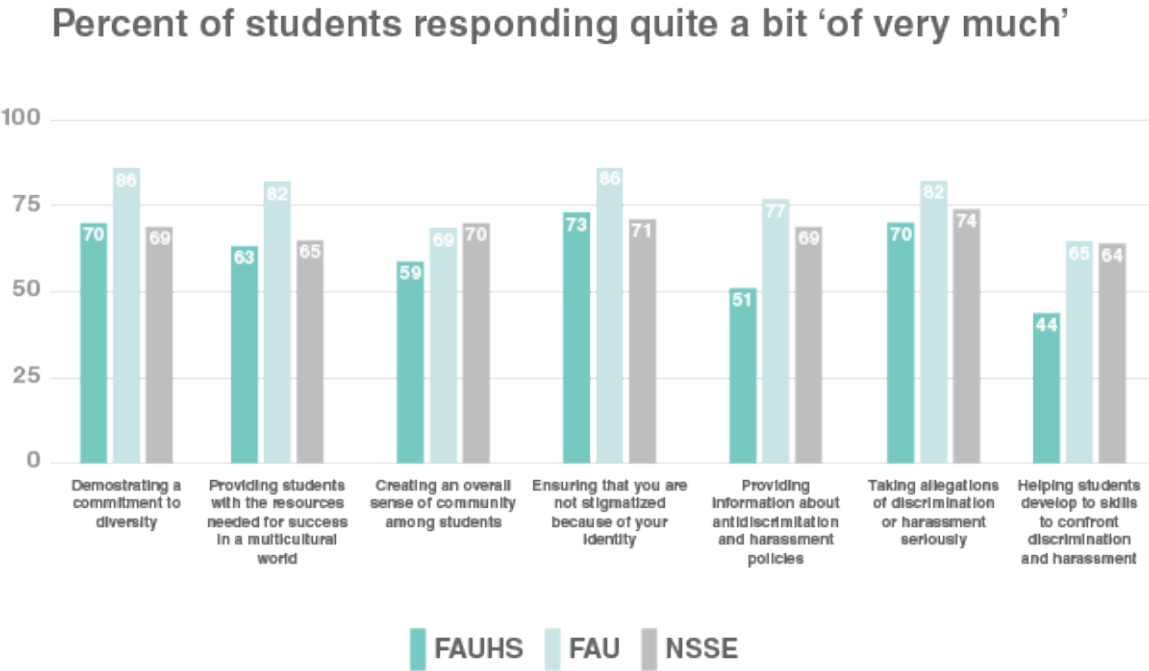


We found that students’ sense of belonging at either FAU or FAUHS was positively correlated with students’ views on each institution’s commitment to diversity (FAU: Pearson’s $r=0.47$, $p=0.000$; FAUHS: Pearson’s $r=0.47$, $p=0.000$).

Cultural affinity. Overall, students felt that FAU demonstrated a greater institutional commitment to equity and diversity than FAUHS. On a scale of 1 (very little) to 4 (very much), students on average rated FAU a 3.1, compared to 2.8 for FAUHS.

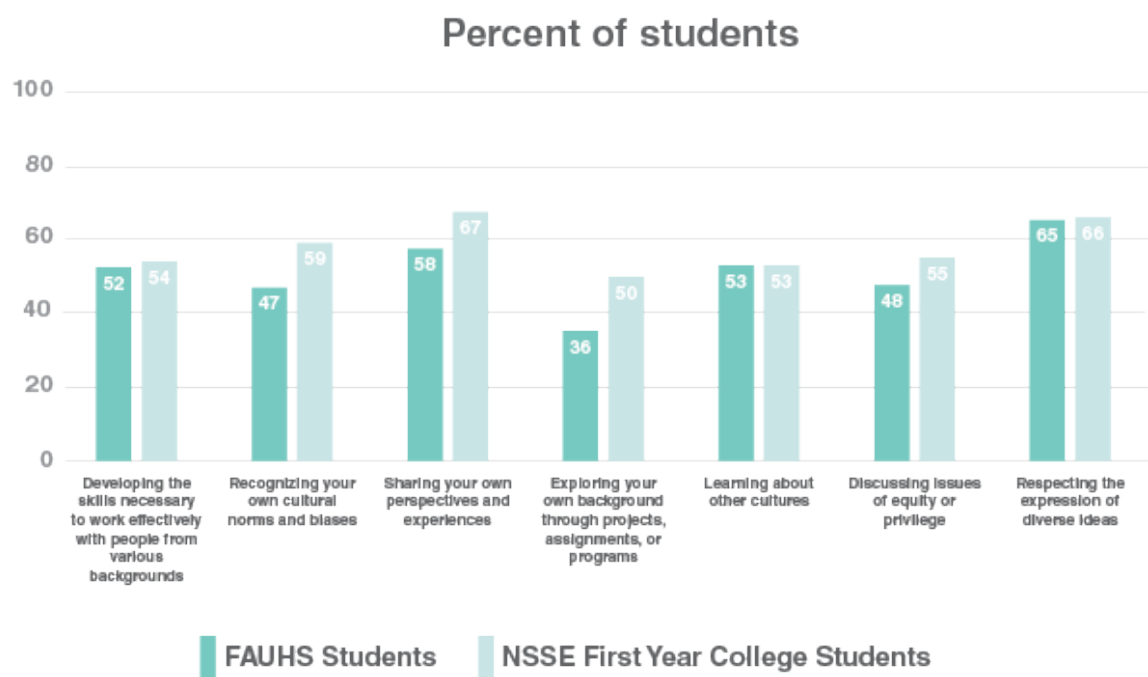
Compared to a national sample of first-year college students (NSSE, 2018), students rated FAU about the same or slightly better in terms of FAU’s overall commitment to diversity (Figure 12). In contrast, students generally rated the high school’s commitment to diversity about the same or somewhat less than students nationally.

Figure 12: Institutional commitment to diversity



Diversity in the classroom. Compared to a national sample of first-year students at other colleges and universities (NSSE, 2018), FAUHS students reported less emphasis in their courses on recognizing personal norms and biases, sharing personal perspectives and experiences, and the exploration of personal backgrounds. About the same percent of respondents in the national sample and at FAUHS said that their coursework focused on developing the skills necessary to work with people from various backgrounds, learning about other cultures, and respecting the expression of diverse ideas.

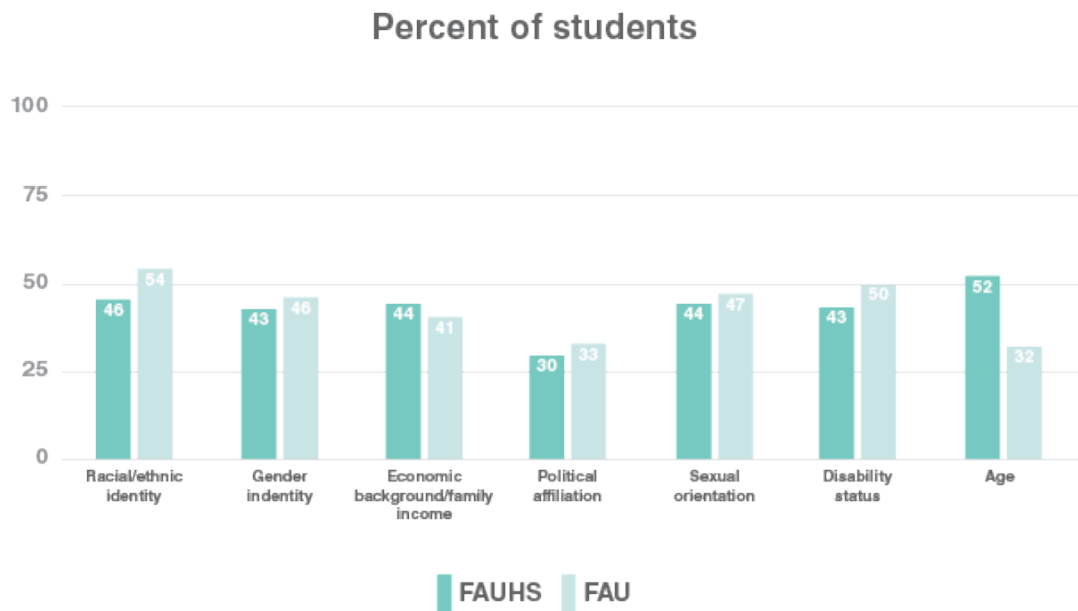
Figure 13: Exploring diversity and inclusion at FAUHS



Students felt that overall, FAU demonstrated a significantly greater commitment than FAUHS to individual identity and diversity such as gender or race. A paired samples t-test demonstrated that on a scale of 1 (very little) to 4 (very much), students rated FAU’s commitment to individual diversity at 3.2 and rated FAUHS at 3.0 ($p=0.000$). The individual scale items that comprise the inclusive environment scale are provided in Appendix B.

Regarding individual types of diversity, survey respondents rated FAU more positively than FAUHS on nearly all types of diversity, including racial/ethnic identity, gender identity, political affiliation, sexual orientation, and disability status. Students rated FAUHS significantly more positively than FAU on their support of age diversity.

Figure 14: Support for individual forms of diversity

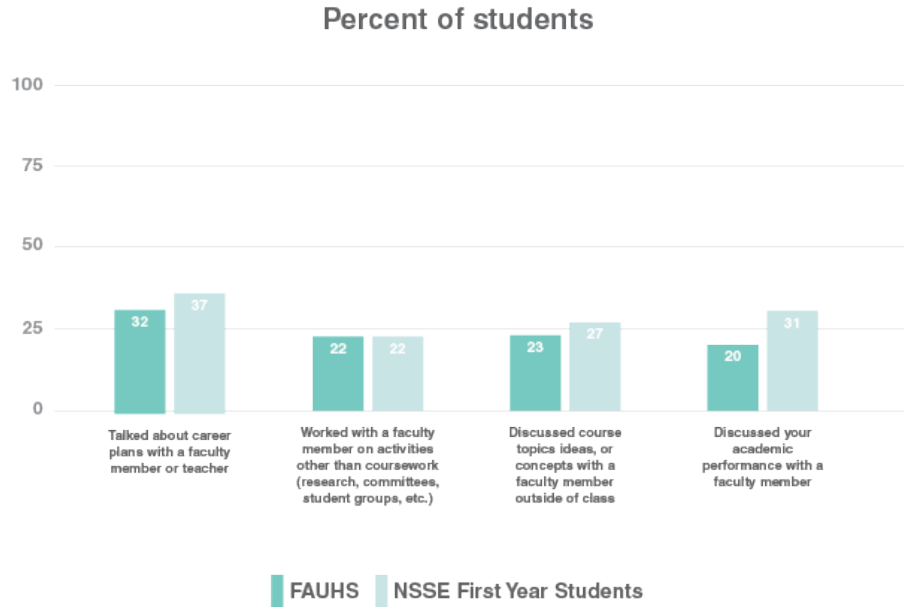


Personal commitment to diversity. Survey respondents more frequently engaged in diversity-related activities at FAU than FAUHS, such as reflecting on their own cultural identity or attending cultural events. On a scale of 1 (never) to 4 (very often), students averaged 1.63 at FAU and 1.47 at FAUHS. This difference may be reflective of increased opportunities to participate in diversity-related clubs and activities at the university as opposed to the high school.

Relationships with faculty and staff. One-third of FAUHS students reported that they often talked about their career plans with faculty members, and 27 percent often attended office hours (Figure 15). Data from the NSSE national sample of first-year college students suggested that FAUHS interacted with faculty somewhat less than other college students. Twenty percent of FAUHS students frequently discussed their academic performance with faculty, compared to 31 percent of the national sample.

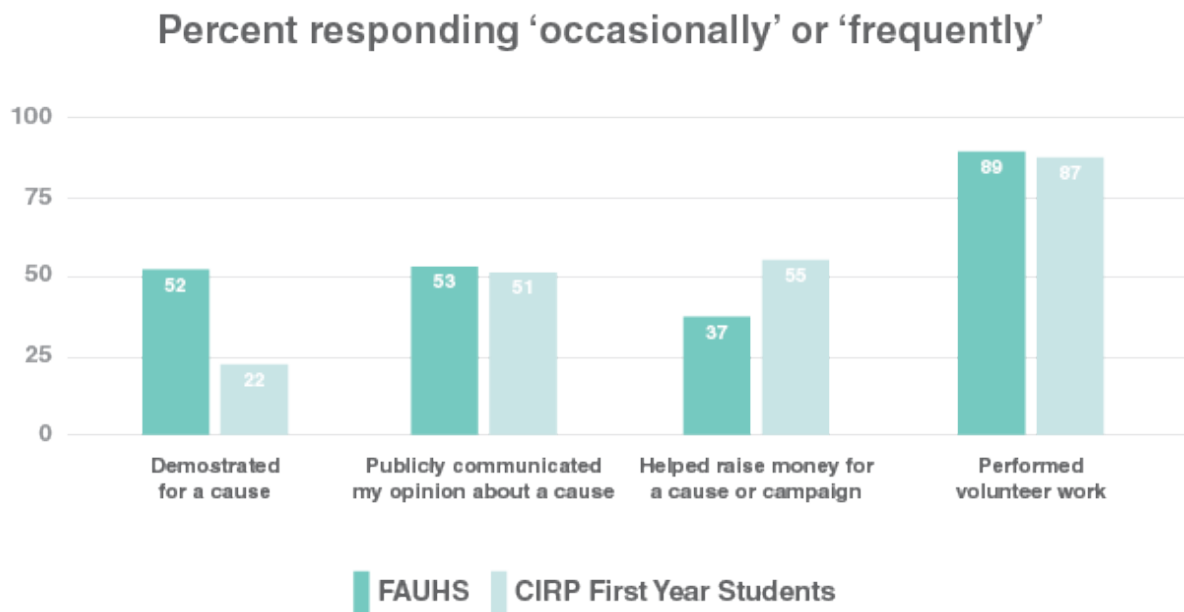
Nearly one-quarter of students reported that they never share their high school student status with professors at FAU, with an additional 35 percent indicating that they occasionally share their status with professors. Only 16 percent of students reported being fully open with professors about their student status.

Figure 15: Engagement with faculty and staff



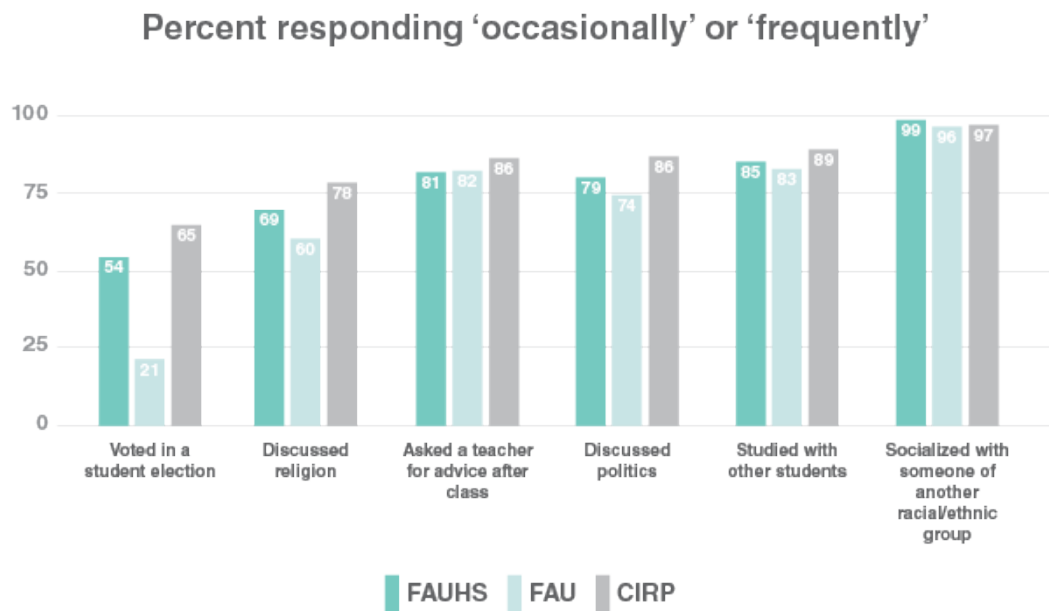
Civic engagement. Nearly all FAUHS students (89 percent) reported occasionally or frequently performing volunteer work, and about half publicly communicated their opinion about a cause (Figure 16). On both measures, rates among FAUHS students were similar to those from the CIRP national sample of first-year college students (Eagan et al., 2017). However, FAUHS students were more likely to demonstrate for a cause, but less likely to raise money for a cause or campaign.

Figure 16: Civic engagement



Engagement in school community. Nearly all FAUHS students reported socializing with people from other racial/ethnic groups, and the vast majority studied with other students (Figure 17). On these measures, FAUHS students answered similarly to a national sample of first-year college students (Eagan, et al., 2017). At both FAU and FAUHS, students were somewhat less likely to discuss religion or politics compared to the national sample. At FAU, only 21 percent of students said they 'frequently' or 'occasionally' voted in student elections, far lower than the national rate of 65 percent.

Figure 17: Engagement in school community



Sixteen percent of students reported that they are always open with their FAU professors about their status as a high school student, while slightly more than the 12 percent of students are open with other FAU students. More than 20 percent of students said they never share their high school status with either FAU professors or peers.

Self-assessment. Students felt they possessed strong ability to work with diverse people and to having their views challenged; about 85 percent of students rated these traits as strengths. Fewer students felt positively about their study skills and ability to manage their time effectively. About half (48 percent) of students said they possessed strong study skills, and 36 percent said they excelled at time management. Compared to a national sample of first-year college students, students at FAUHS rated themselves similarly except on their perceived time management skills; FAUHS students rated themselves lower in this area.

When asked about specific skills and abilities, students rated themselves mostly highly on their academic ability and drive to achieve. Eighty-four percent of all respondents felt they possessed above average academic ability, and 78 percent felt they demonstrated an above average drive to achieve. A smaller proportion of students felt less positively about their public speaking abilities, risk-taking, and physical health. Interestingly, 63 percent of students felt they had above average intellectual self-confidence, but only 37 percent felt they had above average social self-confidence.

Compared to a national sample of first-year college students, FAUHS students rated themselves more highly on their academic ability (84 percent identified this as a 'major strength compared to 73 percent of the national sample), mathematical ability (73 percent versus 48 percent), and writing ability (70 percent versus 48 percent). FAUHS students rated themselves lower on their compassion (62 percent versus 70 percent), physical health (39 percent versus 53 percent), social self-confidence (37 percent versus 46 percent), and emotional health (32 percent versus 47 percent).

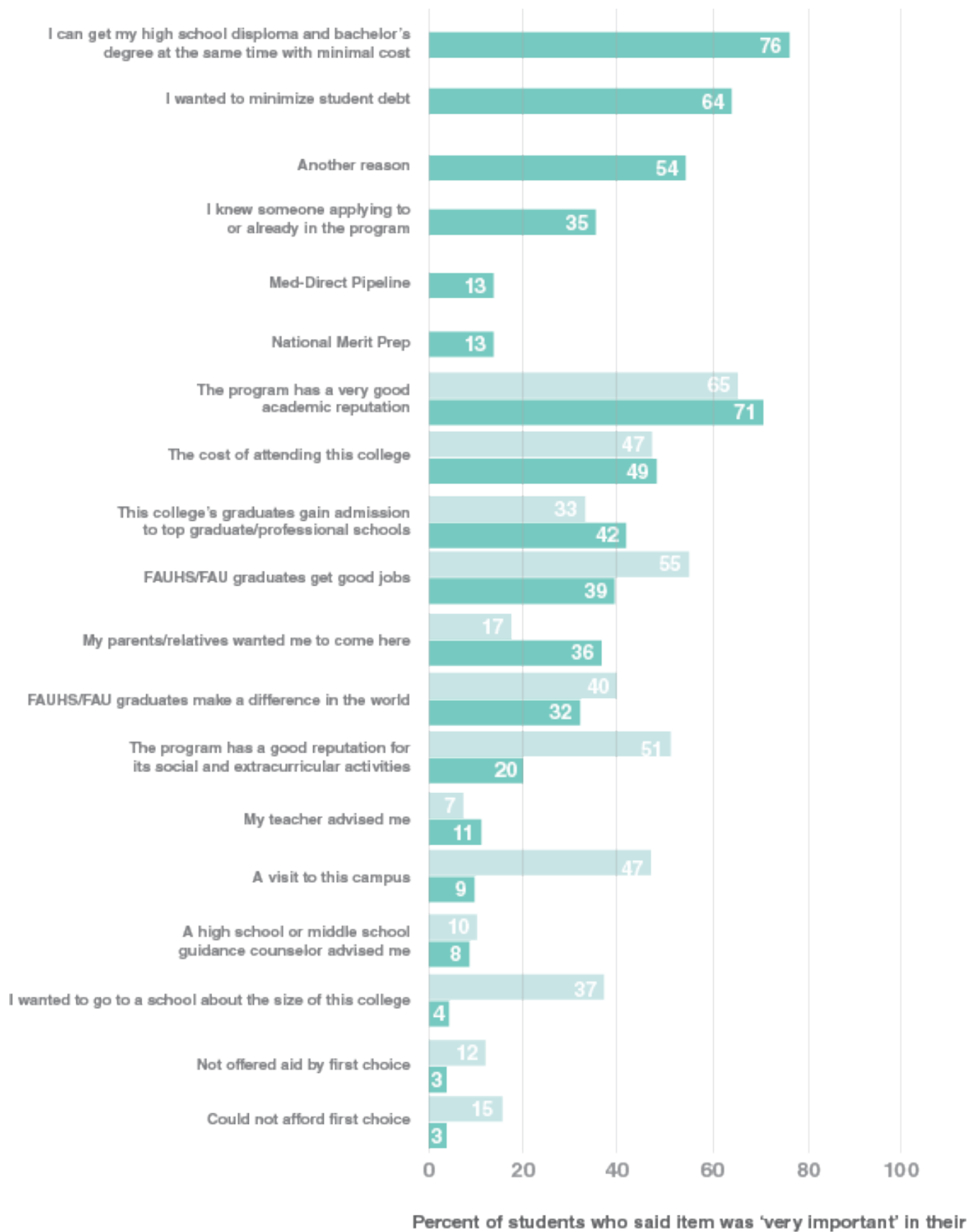
Reasons for attending FAUHS. When asked about the factors that influenced their decision to attend FAUHS, students most often cited the ability to get a high school diploma and a bachelor's degree concurrently with minimal cost; 76 percent said this was a 'very important' reason for attending, and 16 percent said it was 'somewhat important' (Figure 18). Students also cited the academic reputation of the school, minimizing student debt, and the cost of attendance as major factors. Among a national sample of first-year college students, the most common reasons for attending a particular institution were the school's academic reputation (65 percent), the school's graduates get good jobs (55 percent), and the school's social and extracurricular reputation (51 percent) (Eagan, 2017). Compared to the national sample, FAUHS students were more likely to cite entry into top graduate schools and a parent or relative wanting them to attend; FAUHS students were less likely to cite a visit to the campus, getting a good job, and the school's social reputation as major factors.

A number of students wrote in their own response to this survey item. Their self-described reasons for attending FAUHS fell into two broad categories: not fitting in nor liking high school, and a desire for getting ahead and learning in a more challenging environment. The latter of these responses aligns with findings from a 2017 study in which concurrently enrolled students identified their motivations for enrolling: getting ahead, preparing for university, a love of learning, seeking challenge, self-fulfillment, socializing, and demonstrating initiative (Dare, Dare, & Nowicki, 2017).

Men and women responded similarly on their reasons for attending FAUHS. However, White students and students of color reported somewhat differing reasons for attending the program.

Students of color were significantly more likely than White students to cite their family or relatives wanting them to attend (43 percent compared to 24 percent) and the cost of attending FAUHS (53 percent compared to 41 percent) as very important reasons for attending. White students were more likely to report (12 percent compared to 5 percent) that advising by a teacher was a very important reason for attending the program.

Figure 18: Reasons for attending FAUHS



Conclusions and Recommendations

The results from this study contribute important findings to elected officials, states, university officials and school leadership on one model that provides access to a four-year college degree at a significantly reduced cost to students and their families.

With proper supports, some high school students can thrive in a college environment. FAUHS students demonstrated high levels of academic achievement as evidenced by standardized test scores, grade point averages, and aspirations for master's and doctoral degrees. All FAUHS students earned a Level 3 or higher on the Florida Standards Assessment (FSA), compared to just over half of other higher school students. Similarly, all FAUHS students scored a Level 3 or higher on the biology end-of-course exam, compared to about two-thirds of other students.

Compared to other FAU students, FAUHS students earned higher scores on the ACT (26.5 compared to 24.3). In addition, FAUHS students earned an average grade point average of 3.2, compared to 2.7 for FAU students overall; these differences persisted within each academic college at FAU. Finally, one-third of FAUHS students planned to earn a master's degree and more than half – 54 percent – planned to earn a medical degree, Ph.D., or other doctoral degree. In contrast, 31 percent of a national sample of college freshmen aspired to a doctoral degree.

This evaluation found that FAUHS students earned, on average, 94 college credit hours by the time they graduated from high school, and about 60 percent were classified as at least college juniors at the time of high school graduation. In a survey, 89 percent of respondents reported that they planned to earn their bachelor's degree at FAU. Analysis showed that among the FAUHS class of 2016, 48 percent went on to graduate from FAU, with 23 percent of the class still enrolled at the university. This degree of accelerated learning and credit accumulation – particularly when students and their families incur minimal out-of-pocket costs - has significant implications for students' educational, career, and life trajectories.

While our evaluation demonstrated that high school students can succeed in college and earn bachelor's degrees, it is important to consider the challenges and implications of this or any other accelerated academic program, such as how FAUHS and similar programs can promote equitable access for accelerated learning, how to track students' college and career trajectories post-graduation, and how to support students' socio-emotional health.

We found that FAUHS students were not demographically representative of students from the surrounding community. Compared to Palm Beach and Broward County school districts, FAUHS enrolled a higher proportion of White and Asian students, and fewer Black and Latinx students. Further, the school enrolled no English Language Learners and few special education students. FAUHS does not enroll any ELLs because the school's entry requirements exceed the state's criteria to be exited from ELL programming. However, it is important to consider how FAUHS or others wishing to replicate the FAUHS model could be more inclusive of ELL students.

Students who are not the most academically advanced or the most privileged should have access to accelerated programs such as FAUHS. The FAUHS model offers students the opportunity to graduate with a diploma and a bachelor's degree with minimal debt, an opportunity that should be available to any student wishing to pursue such a program. Because FAUHS students do not represent the surrounding community demographically, **we recommend that FAUHS expand recruitment efforts and change entrance criteria to intentionally recruit students of color, English Language Learners, and special education students, the groups that are most historically marginalized.**

We recommend to other schools, school districts, universities, or other institutions wishing to replicate the FAUHS model to consider how to best promote equity in recruitment, enrollment, and support of these groups of students.

FAUHS students had high academic aspirations, with most wanting to earn master's and doctoral degrees. However, little is known about students' actual college and career trajectories once they leave the FAUHS program. This includes the academic trajectories both of students who ultimately graduate from FAU, and those that opt to transfer to another university before graduation. Further, at present we can only speculate on how the FAUHS program might impact students' lives as young adults. **We recommend that FAUHS collect data on students' educational and career trajectories, as well as data on how and to what extent the program influenced their post-graduation lives.** To collect this data, we recommend continued administration of the FAUHS alumni survey to gather self-reported information on students' academic pathways. We recommend expanding the survey to include questions regarding student debt, and how graduation from the FAUHS program has influenced their lives. Further, we recommend alignment between FAUHS and FAU data systems to improve tracking of students across the two institutions.

While we know that students in the FAUHS program are academically successful, results from our survey revealed that students struggled socio-emotionally during their time at FAUHS and FAU. Some students experienced difficulty fitting in on the university campus, and others felt they lacked social self-confidence. Importantly, in comparison to a national sample of first-year college students, FAUHS students more often reported experiencing emotional distress such as anxiety, depression, or feeling overwhelmed. Pronounced differences emerged between young men and women attending FAUHS, with young women reporting more frequent feelings of anxiety and depression. This finding aligns with literature demonstrating higher occurrences of mental and emotional health problems in teenage girls (Child Mind Institute, 2017).

In light of these findings regarding students' socio-emotional needs, **we recommend that FAUHS increase support for students' socio-emotional needs.** Results suggest that these students, while performing well academically, are in need of emotional and social support. In one study, high school students had varied ways that they coped with stress including listening to music, talking with friends, exercising, and talking to parents (Feld & Shusterman, 2015). FAUHS students can be encouraged to use some of these healthy coping mechanisms. Also, FAUHS can focus on authentic intellectual intensity rather than superficial academic intensity (which is solely based on grades rather than learning) as another study suggests (Galloway & Conner, 2015). Focusing on learning rather than grades might lead to decreased stress and competition. To shift school culture, FAUHS can discuss whose values determine the goals and actions of the school (Galloway & Conner, 2015). Other environmental factors that students reported help with stress in accelerated programs is having support from a broad network of peers, parents, and teachers (Shaunessy-Dedrick, Suldo, Roth, & Fefer, 2014).

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Appendix A:

FAUHS Student Survey Results

1. What grade are you in?

Grade	Percent of students (n=391)
9th grade	18.7%
10th grade	19.0%
11th grade	18.1%
12th grade	17.2%
I graduated from FAUHS and am still enrolled as an undergraduate at FAU	16.3%
I graduated from FAUHS and am not currently enrolled as an undergraduate at any university	7.4%
I graduated from FAUHS and am still enrolled as an undergraduate at another university	3.3%

2. So far, how many credit hours have you earned towards a bachelor's degree? If you're not sure, just use your best guess.

	Percent of students (n=391)
None	3.0%
1-30 hours	33.3%
31-60 hours	15.4%
61-90 hours	21.5%
91 hours or more	26.8%

3. Did you attend 9th grade at FAUHS, or did you transfer into the program in a later grade?

	Percent of students (n=313)
I attended 9th grade at FAUHS	91.2%
I transferred into the program in 10th or 11th grade	8.8%

4. Are you, or will you be, a first-generation college student? A first-generation college student is someone whose parents did not complete a college degree.

	Percent of students (n=389)
Yes	22.5%
No	77.5%

5. What is your college or intended college for earning your undergraduate degree at FAU?

	Percent of students (n=369)
Dorothy F. Schmidt College of Arts and Letters	10.5%
College of Business	11.9%
College for Design and Social Inquiry	4.4%
College of Education	1.9%
College of Engineering and Computer Science	28.3%
Harriet L. Wilkes Honors College	1.0%
Charles E. Schmidt College of Medicine	8.9%
Christine E. Lynn College of Nursing	1.2%
Charles E. Schmidt College of Science	31.9%

6. Please rate how much you feel you belong at the FAUHS and FAU campuses.

	FAUHS			FAU		
	All or most of the time	Some of the time	Rarely or never	All or most of the time	Some of the time	Rarely or never
I feel I am a member of the campus community	45.6%	37.8%	16.6%	31.6%	45.8%	22.6%
I feel like I belong on campus.	47.1%	35.5%	17.4%	61.7%	30.9%	7.4%
Other students are welcoming to me.	61.2%	33.9%	4.9%	57.6%	38.4%	3.9%
Teachers, faculty, and staff are welcoming to me.	67.5%	27.4%	5.0%	66.9%	31.3%	1.8%
I feel like I am a part of this school.	58.3%	26.6%	15.1%	55.1%	38.0%	6.9%
I feel very different from most other students here.	22.0%	42.0%	36.0%	39.3%	40.1%	20.6%
I can really be myself here.	48.0%	41.7%	10.3%	50.2%	36.8%	13.0%
I feel comfortable being myself here	52.1%	35.5%	12.3%	54.1%	37.3%	8.6%
I feel valued here	47.8%	35.1%	17.1%	53.3%	38.0%	8.7%

I feel like part of the community here	48.0%	35.6%	16.5%	38.3%	45.1%	16.5%
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7. In the past year, how often have you...

	Not at all	Occasionally	Frequently
Attended a religious service	44.1%	28.0%	27.9%
Demonstrated for a cause	48.2%	39.6%	12.1%
Tutored another student	30.0%	40.8%	29.2%
Consumed beer	84.7%	12.3%	3.0%
Consumed wine or liquor	79.7%	16.7%	3.6%
Felt overwhelmed by all I had to do	6.9%	50.9%	42.2%
Felt depressed	32.3%	42.0%	25.7%
Performed volunteer work	10.9%	43.7%	45.4%
Publicly communicated my opinion about a cause (e.g. social media, blog, email, petition)	47.3%	34.1%	18.6%
Helped raise money for a cause or campaign	63.1%	28.2%	8.7%
Felt anxious	13.0%	41.4%	45.6%

8. In the past year, how often have you...

	FAUHS			FAU		
	Not at all	Occasionally	Frequently	Not at all	Occasionally	Frequently
Been bored in class	18.3%	57.7%	24.0%	6.8%	56.6%	36.6%
Studied with other students	15.2%	43.3%	41.5%	17.2%	46.0%	36.8%
Ask a teacher for advice after class	18.6%	57.7%	23.7%	18.3%	55.0%	26.7%
Voted in a student election	45.9%	36.0%	18.1%	78.9%	15.1%	6.0%
Socialized with someone from another racial/ethnic group	1.5%	8.7%	89.8%	3.7%	14.7%	81.6%
Been late to class	56.0%	40.1%	3.9%	33.4%	61.0%	5.6%

Discussed religion	31.0%	57.8%	11.4%	40.4%	44.6%	15.1%
Discussed politics	20.6%	56.0%	23.4%	26.2%	47.5%	26.3%
Skipped school/class	83.4%	14.6%	1.9%	38.2%	53.7%	8.1%
Fallen asleep in class	73.4%	23.6%	3.0%	59.3%	34.6%	6.1%
Failed to complete homework on time	57.6%	37.9%	4.5%	58.3%	38.1%	3.6%
Participated in campus clubs	30.7%	42.6%	26.7%	49.1%	32.9%	18.0%

9. About how often are you open about your status as a high school student with FAU professors and students?

	Never	Occasionally	Some of the time	All the time
I am open with FAU professors about my status as a high school student	23.8%	35.2%	25.3%	15.8%
I am open with other FAU students about my status a high school student	22.2%	38.5%	27.8%	11.5%

10. About how many hours do you spend in a typical 7-day week doing the following? (Mark one response in each row)

	0 hours	1-5 hours	6-10 hours	11-15 hours	16-20 hours	20+ hours
Preparing for class	0.6%	17.3%	29.0%	21.5%	13.5%	18.2%
Attending class	0.6%	5.9%	22.5%	36.4%	16.3%	18.3%
Participating in co-curricular activities	24.9%	41.6%	17.9%	8.7%	2.9%	3.9%
Working for pay on-campus	89.9%	1.7%	3.2%	2.1%	2.6%	0.5%
Working for pay off-campus	67.8%	8.2%	6.2%	3.8%	7.0%	6.9%
Doing community service and volunteer work	27.2%	51.5%	15.0%	4.5%	0.8%	1.1%
Relaxing and socializing	1.4%	24.9%	34.4%	21.0%	8.7%	9.6%
Providing care for dependents	66.9%	21.0%	7.0%	2.8%	2.1%	0.3%
Commuting to campus	9.8%	57.3%	23.4%	5.7%	2.4%	1.4%

11. During the current school year, how often have you done the following?

	Never	Sometimes	Often	Very often
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Talked about career plans with a faculty member or teacher	19.1%	49.0%	22.5%	9.4%
Worked with a faculty member on activities other than coursework (research, committees, student groups, etc.)	46.1%	31.4%	13.3%	9.1%
Discussed course topics, ideas, or concepts with a faculty member outside of class	29.6%	47.4%	16.8%	6.2%
Discussed your academic performance with a faculty member	27.2%	52.8%	14.3%	5.8%
Discussed your academic performance with an academic advisor at FAUHS	40.8%	44.0%	11.6%	3.6%
Attended office hours for a teacher or professor	17.0%	55.9%	17.9%	9.3%

12. To what extent have your courses challenged you to do your best work **this school year?** (n=288)

Not at all										Very much
0	1	2	3	4	5	6	7	8	9	10
0.0%	1.8%	1.4%	4.4%	4.7%	5.4%	10.7%	24.7%	28.1%	15.5%	6.5%

Mean=7.02

13. To what extent have your courses challenged you to do your best work **overall at FAUHS/FAU?** (n=284)

Not at all										Very much
0	1	2	3	4	5	6	7	8	9	10
0.0%	0.0%	1.8%	3.4%	6.5%	4.5%	13.1%	21.9%	28.6%	14.4%	5.8%

Mean=7.11

14. To what extent did the FAUHS program meet your expectations? (n=287)

Not at all										Very much
0	1	2	3	4	5	6	7	8	9	10
0.3%	0.5%	2.2%	3.0%	6.0%	7.4%	7.7%	14.1%	18.0%	17.6%	23.3%

Mean=7.54

15. How would you rate yourself in the following areas?

	A major weakness	Somewhat weak	Average	Somewhat strong	Major strength
Ability to manage your time effectively	11.4%	20.7%	32.3%	23.4%	12.3%

Study skills	6.9%	14.7%	30.9%	29.1%	18.4%
Openness to having my own views challenged	1.3%	7.6%	26.8%	40.6%	23.8%
Ability to discuss and negotiate controversial issues	1.3%	8.6%	21.8%	40.5%	27.9%
Ability to see the world from someone else's perspective	0.3%	6.2%	16.9%	39.8%	36.7%
Critical thinking skills	0.7%	1.0%	19.2%	41.4%	37.7%
Tolerance of others with different beliefs	0.6%	2.2%	12.4%	31.9%	52.9%
Ability to work cooperatively with diverse people	0.3%	1.5%	12.1%	33.1%	53.0%

16. Rate yourself on each of the following traits as compared to the average person your age, including peers not in the FAUHS program. We want the most accurate estimate of how you see yourself.

	Lowest 10%	Below Average	Average	Above Average	Highest 10%
Academic ability	1.1%	2.1%	12.5%	39.8%	44.5%
Artistic ability	13.8%	25.0%	29.0%	23.8%	8.4%
Compassion	2.0%	7.8%	28.5%	31.9%	29.9%
Computer programming skills	18.5%	26.1%	28.6%	15.6%	11.1%
Creativity	2.2%	8.0%	30.6%	44.7%	14.5%
Drive to achieve	1.6%	3.9%	17.0%	38.7%	38.8%
Emotional health	10.3%	25.2%	34.7%	23.5%	8.3%
Leadership ability	1.6%	9.1%	23.8%	41.8%	23.7%
Mathematical ability	2.8%	5.5%	18.7%	39.2%	33.8%
Physical health	4.5%	16.1%	40.5%	24.9%	14.0%
Public speaking ability	7.0%	15.7%	31.3%	26.2%	19.7%
Risk-taking	4.9%	18.5%	32.0%	35.3%	9.4%
Self-confidence (social)	6.1%	28.2%	28.3%	23.4%	13.9%
Self-confidence (intellectual)	2.7%	11.3%	23.3%	35.7%	27.0%
Spirituality	19.4%	16.3%	31.8%	22.7%	9.8%

Understanding of others	0.3%	4.2%	23.2%	43.9%	28.4%
Writing ability	2.5%	5.5%	22.3%	40.5%	29.2%

17. During the current school year, how often have you...

	Never	Almost Never	Sometimes	Fairly Often	Very often
...consumed alcohol or drugs as a way to deal with stress?	81.2%	7.7%	6.4%	1.8	2.9
...had thoughts of self-harm?	60.9%	21.7%	9.9%	5.1%	2.5%
...found that you could not cope with all of the things you had to do?	11.4%	30.4%	33.1%	16.5%	8.6%
...felt that you were unable to control the important things in your life?	6.5%	28.0%	38.1%	18.5%	8.9%
...been upset because of something that happened unexpectedly?	6.5%	18.8%	48.4%	20.3%	7.9%
...been angered because of things that happened that were outside of your control?	8.0%	20.5%	41.1%	20.1%	10.2%
...felt difficulties were piling up so high that you could not overcome them?	11.7%	25.0%	32.5%	18.6%	12.3%
...felt that things were going your way?	1.4%	15.2%	45.3%	31.7%	6.5%
...felt that you were on top of things?	2.2%	19.3%	33.9%	38.2%	6.4%
...been able to control irritations in your life?	1.5%	8.8%	41.6%	38.6%	9.5%
...felt confident about your ability to handle your personal problems?	1.3%	9.7%	35.1%	38.8%	15.1%
...felt nervous and stressed?	0.0%	8.5%	28.9%	28.6%	33.9%

18. During the current school year, how much have your courses emphasized the following, either directly or indirectly?

	Percent of students (n=247)				
	Very much	Quite a bit	Some	Very little	Quite a bit or more
Developing the skills necessary to work effectively with people from various backgrounds	23.0%	29.4%	24.6%	23.0%	52.4%

Recognizing your own cultural norms and biases	23.1%	23.6%	32.2%	21.1%	46.7%
Sharing your own perspectives and experiences	23.6%	33.9%	28.4%	14.1%	57.5%
Exploring your own background through projects, assignments, or programs	16.1%	19.5%	24.9%	39.6%	35.6%
Learning about other cultures	23.9%	28.9%	26.5%	20.8%	52.8%
Discussing issues of equity or privilege	20.1%	27.6%	26.3%	26.0%	47.7%
Respecting the expression of diverse ideas	31.8%	32.8%	22.5%	12.9%	64.6%

19. How much do FAUHS and FAU emphasize the following?

	FAUHS				FAU			
	Very little	Some	Quite a bit	Very much	Very little	Some	Quite a bit	Very much
Demonstrating a commitment to diversity	4.7%	25.4%	37.4%	32.5%	1.0%	12.5%	45.4%	41.1%
Providing students with the resources needed for success in a multicultural world	9.0%	27.9%	36.0%	27.1%	2.3%	15.6%	41.9%	40.2%
Creating an overall sense of community among students	15.8%	25.2%	22.5%	36.4%	5.4%	25.7%	36.7%	32.2%
Ensuring that you are not stigmatized because of your identity	7.9%	18.6%	27.4%	46.1%	1.8%	12.5%	41.6%	44.1%
Providing information about anti-discrimination and harassment policies	19.5%	29.1%	26.3%	25.0%	7.7%	14.6%	34.4%	43.2%
Taking allegations of discrimination or harassment seriously	7.6%	22.8%	30.0%	39.6%	4.0%	13.6%	39.4%	43.0%
Helping students develop the skills to confront discrimination or harassment	21.9%	34.8%	23.6%	19.7%	12.8%	22.9%	31.6%	32.6%

20. How much do FAUHS and FAU provide a supportive environment for the following forms of diversity?

	FAUHS				FAU			
	Very much	Quite a bit	Some	Very little	Very much	Quite a bit	Some	Very little
Racial/ethnic identity	45.5%	33.8%	17.7%	3.1%	54.2%	35.5%	10.0%	0.0%

Gender identity	42.8%	26.3%	24.0%	7.0%	46.2%	32.3%	18.9%	2.7%
Economic background/family income	44.1%	30.8%	18.4%	6.7%	40.7%	36.2%	19.1%	4.0%
Political affiliation	29.6%	24.0%	31.7%	14.7%	32.8%	32.9%	26.1%	8.2%
Sexual orientation	44.3%	28.0%	23.7%	4.0%	47.3%	35.7%	14.8%	2.2%
Disability status	43.3%	24.7%	25.6%	6.3%	49.5%	34.4%	10.8%	5.3%
Age	51.9%	26.6%	14.5%	7.0%	32.0%	26.2%	30.3%	11.5%

21. During your time in the FAUHS program, about how often have you done the following?

	FAUHS				FAU			
	Never	Someti mes	Often	Very often	Never	Someti mes	Often	Very often
Attended events, activities, or presentation that reflect an appreciation for diverse groups of people	54.8%	33.2%	8.2%	3.8%	51.7%	30.9%	11.1%	6.3%
Participated in the activities of centers related to specific groups (racial/ethnic, cultural, religious, gender, LGBT, etc.)	69.1%	23.4%	4.5%	3.0%	60.7%	27.2%	7.7%	4.4%
Participated in a diversity-related club or organization	69.3%	20.1%	8.7%	2.0%	70.8%	15.3%	8.4%	5.5%
Participated in a demonstration for a diversity-related cause	80.9%	11.4%	6.1%	1.5%	72.9%	17.3%	7.3%	2.5%
Reflected on your cultural identity	38.8%	41.8%	13.1%	6.3%	38.2%	31.5%	20.0%	10.3%

22. Below are some reasons that might have influenced your decision to attend the FAUHS program. How important was each reason in your decision to come here?

	Very important	Somewhat important	Not at all important
Could not afford first choice	2.8%	10.1%	87.0%
Not offered aid by first choice	3.3%	8.9%	87.7%
I wanted to go to a school about the size of this college	3.8%	19.2%	77.0%
A high school or middle school guidance counselor advised me	8.2%	17.9%	74.0%

A visit to this campus	9.0%	23.1%	67.9%
My teacher advised me	10.8%	22.4%	66.8%
National Merit Prep	13.2%	25.3%	61.5%
Med-Direct Pipeline	13.3%	14.5%	72.2%
The program has a good reputation for its social and extracurricular activities	20.2%	31.2%	48.6%
FAUHS/FAU graduates make a difference in the world	31.7%	37.8%	30.5%
I knew someone applying to or already in the program	35.0%	26.3%	38.7%
My parents/relatives wanted me to come here	36.3%	35.5%	28.2%
FAUHS/FAU graduates get good jobs	39.1%	35.2%	25.7%
This college's graduates gain admission to top graduate/professional schools	41.6%	35.0%	23.4%
The cost of attending this college	47.8%	30.5%	21.7%
Another reason	54.0%	3.1%	42.9%
I wanted to minimize student debt	63.9%	24.5%	11.6%
The program has a very good academic reputation	70.5%	22.1%	7.4%
I can get my high school diploma and bachelor's degree at the same time with minimal cost	75.9%	15.9%	8.2%

23. In the next 12 months, what is your best guess as to the chances that you will...

	No chance	Very little chance	Some chance	Very good chance
Participate in volunteer or community service work	2.9%	11.1%	27.2%	58.9%
Take a course exclusively online	8.6%	11.0%	26.1%	54.3%
Participate in student clubs/groups	8.7%	14.9%	29.0%	47.5%
Participate in research	7.5%	24.2%	27.0%	41.3%
Shadow a professional in a field I'm interested in	7.1%	14.6%	42.0%	36.3%
Communicate regularly with your professors	3.6%	14.8%	45.8%	35.8%
Get a job to help pay for college expenses	12.8%	21.0%	36.4%	29.9%
Work on a professor's research project	16.3%	24.4%	30.2%	29.1%
Vote in a local, state, or national election	44.0%	11.7%	15.6%	28.7%

Work at an internship	4.9%	22.8%	43.9%	28.5%
Seek personal counseling	23.7%	36.8%	24.9%	14.6%
Take courses from more than one college simultaneously	49.5%	29.3%	7.7%	13.4%
Change career choice	28.1%	44.2%	17.7%	10.0%
Participate in student government	38.8%	37.6%	16.2%	7.4%
Change major field	42.1%	37.1%	16.8%	3.9%
Transfer to another high school or college before graduating	69.5%	20.7%	6.8%	3.0%

24. How prepared do you feel to do each of the following?

	Not at all prepared	A little prepared	Somewhat prepared	Very prepared
Interview for a graduate program	22.3%	29.0%	33.0%	15.6%
Apply for graduate school	21.0%	24.7%	34.7%	19.5%
Network	12.5%	30.0%	33.3%	24.2%
Interview for a job	8.9%	17.3%	43.3%	30.5%
Write a personal statement	9.4%	24.2%	30.8%	35.6%
Apply for a job	7.6%	17.3%	39.2%	35.9%
Have a job	5.9%	17.0%	36.5%	40.6%
Talk to a professional in a field I'm interested in	6.3%	14.4%	36.7%	42.6%
Write a resume	4.5%	19.2%	29.4%	46.9%
Get a bachelor's degree	3.3%	8.8%	29.9%	58.0%

25. Do you intend to complete your bachelor's degree at FAU?

	Percent of students (n=209)
Yes	88.9%
No	11.1%

26. What is the highest academic degree that you intend to obtain?

	Percent of students (n=241)
Associate	0.8%
Bachelor's	7.5%
Master's	32.0%
J.D.	4.8%
M.D., D.D.S., D.V.M., (Medical)	26.7%
Ph.D or Professional Doctorate	27.2%

27. What do you plan to do immediately after earning your bachelor's degree?

	Percent of students
Join the armed forces	3.2%
Something else	8.1%
Gap year	9.7%
I'm not sure	12.1%
Work	25.1%
Attend a graduate program	70.9%

28. Where have you gone for information about the entrance requirements of various graduate programs?

	Percent of students (n=238)
Guidance counselor	41.9%
Teacher	16.9%
Coach	1.2%
Family member	34.2%
Friend	28.2%
Publications or websites from the schools I'm interested in	59.7%
Representatives from the schools I'm interested in	15.3%

General college search guides, publications, or websites	57.1%
A student enrolled in the program I'm interested in	21.9%
None of the above	14.6%

Demographics of survey respondents

	Percent of Survey Respondents
Gender (n=243) <ul style="list-style-type: none"> Female Male Non-binary Another gender Prefer not to answer 	47.3% 47.3% 1.2% 1.6% 2.5%
Distance between home and FAUHS (n=232) <ul style="list-style-type: none"> 5 miles or less 6-10 miles 11-20 miles 21-30 miles 30+ miles 	18.3% 24.9% 33.7% 15.0% 8.2%
Commute time (n=233) <ul style="list-style-type: none"> <10 minutes 10-20 minutes 21-30 minutes 31-45 minutes 46-60 minutes >60 minutes 	6.6% 27.5% 22.2% 23.9% 12.2% 7.6%
Transportation to school (n=233) <ul style="list-style-type: none"> I drive myself Someone else drives me Bus Train/TriRail Walk or bicycle 	39.4% 48.4% 0.4% 9.8% 2.0%
Race/Ethnicity (n=243) <ul style="list-style-type: none"> Asian Black White Hispanic/Latino American Indian/Alaskan Native Another race Prefer not to answer 	16.4% 13.8% 54.3% 26.0% 0.7% 2.7% 2.3%

Appendix B:

Technical Notes on Student Survey

The FAUHS student survey was sent to 800 current and former students. Current students and former students who graduated from high school in 2015 or 2016 were recruited for participation.

Only students who were still enrolled at FAUHS or in an undergraduate program at any university were eligible to participate in the survey. Students who graduated from FAUHS and were not enrolled as an undergraduate at any university were ineligible to participate. In all, 434 students out of a population of 800 (54 percent) participated in the survey. Seven percent of these students (32 students) were ineligible for participation.

Table 11: Survey respondents

	Number of respondents	Percent of respondents (full sample)	Percent of respondents (ineligible respondents removed)
9th grade	81	18.7%	20.1%
10th grade	82	19.0%	20.4%
11th grade	79	18.1%	19.7%
12th grade	75	17.2%	18.7%
Graduated from FAUHS and still an undergraduate at FAU	71	16.3%	17.7%
Graduated from FAUHS and still an undergraduate at another university	14	3.3%	3.5%
Graduated from FAUHS and not in any undergraduate program	32	7.4%	--
Total	434	100%	100%

Out of the 434 survey responses, women comprised XX% and men comprised XX% percent. Because this distribution is not proportional to the gender distribution at FAUHS (approximately 50% women and 50% men), researchers added weight to survey responses. Responses from women received a weight of 0.85 and responses from men received a weight of 1.40. Responses from students who did not identify their gender, or who identified as non-binary or gender fluid, received a weight of 1.00.

Reliability and Validity Measures

Cronbach's alpha is a measure of scale reliability. It helps us to quantify how well a group of survey items are dependent on one another. In other words, we use this measure to make sure that items used together in a scale are not independent. The measure ranges from 0 to 1, with lower numbers indicative of low covariance and higher numbers indicative of higher covariance. Higher numbers are indicative of increased scale reliability. The exact threshold for scale reliability varies; for purposes of this evaluation, we assume that a Cronbach's alpha of 0.70 is indicative of internal scale consistency.

Sense of Belonging Scale

	FAUHS	FAU
I feel I am a member of the campus community.	Alpha = 0.858 Max value=1 (Rarely or never) Minimum value=3 (All or most of the time) Mean=2.34	Alpha = 0.820 Max value=1 (Rarely or never) Minimum value=3 (All or most of the time) Mean=2.38
I feel like I belong on campus.		
Other students are welcoming to me.		
Teachers, faculty, and staff are welcoming to me.		
I feel like I am a part of this school.		
I feel very different from most other students here.		
I can really be myself here.		

Engagement with Adults Scale

Talked about career plans with a faculty member or teacher	Alpha = 0.776 Minimum value=1 (Never) Maximum value=4 (Very often) Mean=2.01
Worked with a faculty member on activities other than coursework (research, committees, student groups, etc.)	
Discussed course topics, ideas, or concepts with a faculty member outside of class	
Discussed your academic performance with a faculty member	
Discussed your academic performance with an academic advisor at FAUHS	
Attended office hours for a teacher or professor	

Exploring Diversity Scale

Developing the skills necessary to work effectively with people from various backgrounds	Alpha = 0.917 Maximum value=4 (Very much) Minimum value=1 (Very little) Mean=2.52
Recognizing your own cultural norms and biases	
Sharing your own perspectives and experiences	
Exploring your own background through projects, assignments, or programs	
Learning about other cultures	
Discussing issues of equity or privilege	
Respecting the expression of diverse ideas	

Institutional Equity and Diversity Scale

	FAUHS	FAU
Demonstrating a commitment to diversity	Alpha=0.883 Minimum value=1 (Very little) Maximum value=4 (Very much) Mean=2.81	Alpha=0.878 Minimum value=1 (Very little) Maximum value=4 (Very much) Mean=3.12
Providing students with the resources needed for success in a multicultural world		
Creating an overall sense of community among students		
Ensuring that you are not stigmatized because of your identity (racial/ethnic, gender, religious, sexual orientation, etc.)		
Providing information about anti-discrimination and harassment policies		
Taking allegations of discrimination or harassment seriously		
Helping students develop the skills to confront discrimination or harassment		

Inclusive Environment Scale

	FAUHS	FAU
Racial/ethnic identity		
Gender identity	Alpha=0.915	Alpha=0.914
Economic background/family income	Minimum value=1 (Very little)	Minimum value=1 (Very little)
Political affiliation	Maximum value=4 (Very much)	Maximum value=4 (Very much)
Sexual orientation	Mean=3.07	Mean=3.16
Disability status		
Age		

Personal Commitment to Diversity Scale

	FAUHS	FAU
Attended events, activities, or presentations that reflect an appreciation for diverse groups of people		
Participated in the activities of centers related to specific groups (racial-ethnic, cultural, religious, gender, LGBT, etc.)	Alpha=0.759	Alpha=0.843
Participated in a diversity-related club or organization	Minimum value=1 (Never)	Minimum value=1 (Never)
	Maximum value=4 (Very often)	Maximum value=4 (Very often)
Participated in a demonstration for a diversity-related cause (rally, protest, etc.)	Mean=1.53	Mean=1.64
Reflected on your cultural identity		

Preparedness for the Future Scale

Interview for a job	<p>Alpha = 0.910</p> <p>Maximum value=1 (Not at all prepared)</p> <p>Minimum value=4 (Very prepared)</p> <p>Mean=2.94</p>
Interview for a graduate program	
Write a resume	
Write a personal statement	
Apply for a job	
Apply for graduate school	
Get a bachelor's degree	
Have a job	
Network	
Talk to a professional in a field I'm interested in	

Emotional health scale

...been upset because of something that happened unexpectedly?	<p>Alpha = 0.841</p> <p>Minimum - 1 (Never)</p> <p>Maximum - 5 (Very often)</p> <p>Mean=2.72</p>
...felt you were unable to control the important things in your life?	
...felt nervous and stressed?	
...found that you could not cope with all of the things you had to do?	
...been angered because of things that happened that were outside of your control?	
...felt difficulties were piling up so high you could not overcome them?	
...had thoughts of self-harm?	
...consumed alcohol or drugs as a way to deal with stress?	

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