2021

ASSESSMENT OF COLLEGIATE RESIDENTIAL ENVIRONMENTS AND OUTCOMES

Annual Report of Findings

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ACREO
Assessment of Collegiate Residential Environments and Outcomes

2021
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Annual Report of Findings

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The material in this report contains data reported from 2018, 2019, and 2021. All survey response data published in any reports, publications, and presentations related to ACREO must be reported in the aggregate, and no individually identifiable information linking such data to a respondent or a participating school should be made publicly available except as required by law.
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ACREO
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WELCOME

The COVID-19 pandemic, which first hit the United States in early 2020, has caused an precedented disruption in how students experience their collegiate environments. For many students, residential environments turned into places of isolation instead of the hubs of community they once were, where students could practice their foreign language major on a culturally-themed floor, discuss their academic and professional goals with a residence-based peer advising group, plan a philanthropic event with their service-oriented community, or even use medieval recipes to prepare dinner with the history professor who lives down the hall. Before the pandemic, these integrative experiences, and the living environments in which they occur, were a lot of work – even when they are excellent examples of collaborations between myriad campus departments both in and out of student affairs. However, as students at many campuses attended classes remotely during the 2020-2021 academic year, residence life coordinators were tasked with creating experiences for on-campus students that were both engaging and safe.

We are still uncovering the impact this event has had – and continues to have – on our students. The Assessment of Collegiate Residential Environments & Outcomes is invested in increasing our understanding of the residential environment's influence on student development and academic success, before, during, and after the effects of the pandemic are felt. We already understand a lot about residential programs, thanks in no small part to Karen Kurotsuchi Inkelas and Aaron Brower, who launched the National Study of Living Learning Programs (NSLLP) in 2004, and Matthew Mayhew, who continued their work from 2015-2020. However, as institutional priorities continue to shift regarding residential requirements and program development, it's important for this study to be inclusive of all living environments. We don't believe that all residential environments should look the same; nor do we believe that certain programs or initiatives such as LLPs are a cure-all. Instead, we believe, as we know you do, that the powerful practice of living on campus can have a profound influence on our students. We hope this report helps you understand how your good and hard work is influencing your students, and how you might alter that good and hard work to improve the impact of the residential experience on particular outcomes.

Sincerely,

Laura Dahl

Dr. Laura S. Dahl, ACREO Principal Investigator
Assistant Professor of Education
North Dakota State University

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TABLE OF CONTENTS

Introduction: Report Overview 7

About ACREO 7

Instrument and Data Collection 12

Using this Report 15

Section One: Student Demographics 19

Equity-minded Considerations 19

Social Identities 20

Socio-academic Background 21

Academic Characteristics 21

Section Two: Residential Environments 23

Measuring Residential Environments 23

2021 Analysis 24

2021 Benchmarking 42

Section Three: Student Outcomes 45

Measuring Student Outcomes 45

2021 Analysis 46

2021 Benchmarking 61

Section Four: Impact Analysis 63

Impact Analysis 63

Regression Results 64

Section Five: Discussion & Implications 67

Residential Environments 67

Student Outcomes 69

Appendix A: Reading the Tables & Charts 71

Appendix B: Demographic Tables 75

Appendix C: Regression Tables 85

INTRODUCTION

ABOUT ACREO

Overview of Study

Research has traditionally demonstrated that living on campus was one of the most significant contributors to a host of college outcomes. The most recent volume of *How College Affects Students* (Mayhew et al., 2016) highlighted many ways that living on campus has changed over the last three decades. Changes to student engagement on campus, especially in residence, reflect new and lasting ways that students connect with one another and campus resources. Students may not be as dependent upon their residential environments for social or academic connections as they once were. Expanding social networks influence how students choose to engage with their living environment and subsequently calls into question many traditional methods of programming within residence halls. As campus leaders design new residence halls and develop residential priorities, they must seek to understand how changes in student experiences impact student outcomes. While living on campus still "contributes to greater retention and graduation" (Mayhew et al., 2016, p. 545), individual campus environments play their own role in impacting student's innovation, persistence, and sense of belonging.

The Assessment of Collegiate Residential Environments and Outcomes (ACREO), led by Dr. Laura S. Dahl, furthers the conversation by assessing the influence of the varied residential environments on the academic, intellectual, and social development of college students. Drawing from the knowledge of seasoned residential life and housing professionals as well as scholars of student learning and development, its primary purpose is to help institutions understand how their residential programs shape students' learning and development while providing multi-institutional data.

The study has been, and will continue to be, administered to a diverse and representative sample of colleges and universities, which allows for national benchmarking. Our 2015 pilot year had nearly 1,500 responses from students at seven institutions, public and private, urban and rural, from New York to California. We added four institutions for the 2016 study, six institutions in 2017, three in 2018, and five in 2019; two new and one repeat institution participated in 2021, bringing the total number of students represented to over 16,000. The map on the following page visualizes the national reach of this study. The assessment and research collected on this data will inform the conversation about effective residential practices in higher education for years to come.

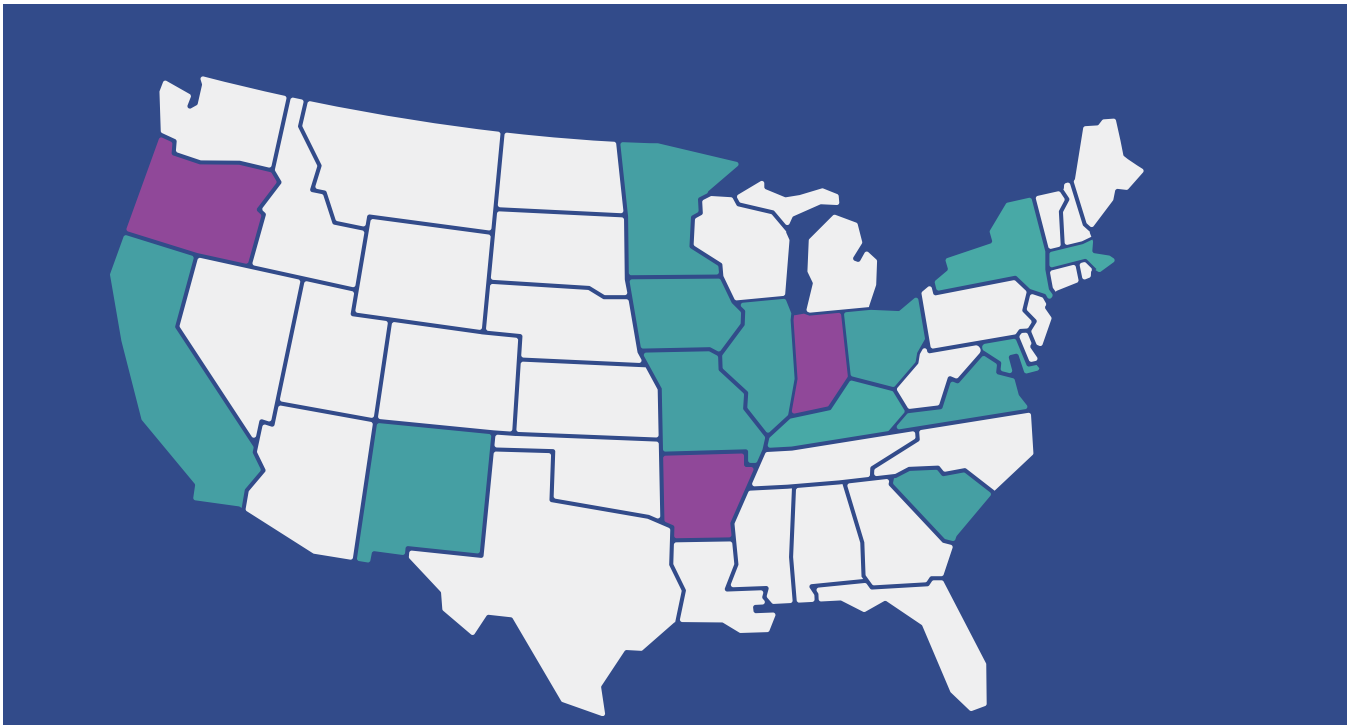


Figure 1: States where the ACREO survey has been administered

Research and Assessment Questions

ACREO is designed firstly as an assessment tool - our goal is to help practitioners identify meaningful data around their students' experience by measuring what students gain through distinct facets of their residential programs. However, this project also continues and improves upon previous research by providing current insight into how student outcomes vary by college residential arrangements. Three primary questions guide our thinking for this project:

1. **How do student experiences differ by residential environment?** Answers to this question can help practitioners understand if students in various residential programs have different experiences in the ways they expect based on programmatic designs and intentions.
2. **How do student outcomes differ by residential environment?** Answers to this question can help practitioners know that their programs are achieving their intended learning outcomes and objectives.
3. **Which experiences influence which outcomes?** Answers to this questions can help practitioners understand which practices to implement if they want their students to achieve intended outcomes.

Defining Key Terms

Because the survey is designed to capture students' perceptions of their residential experiences, we pay careful attention to the various residential options students can select. Below are definitions of several terms that may prove helpful when interpreting report findings:

- **Off-campus:** Students who do not live in an on-campus residence hall are considered off-campus students. These students can technically live on-campus, such as in on-campus Greek housing, but since they are not in housing organized by residence life, they are considered off-campus.
- **On-campus:** Students who live in housing organized by residence life are considered on-campus and can live in either on-campus residence halls or off-campus residence halls.

- **Living Learning Program/Community (LLP/C):** We use the Inkelas et al. (2008) definition of living learning programs: "programs in which undergraduate students live together in a discrete portion of a residence hall (or the entire hall) and participate in academic and/or extra-curricular programming designed especially for them" (p. I-2). We acknowledge, though, that best practices around extra-curricular programming in residence life departments have advanced in the past decade: by this definition, many institutions could classify ALL residence halls as LLPs. The broadness of this definition is also useful: We use LLP as an umbrella term to describe many different integrations of residential and intellectual experiences, including these sub-categories of LLPs:
  - » **Theme LLP:** Students living in Theme LLPs live together based on a common interest, such as social justice or wellness.
  - » **Academic LLP:** Students living in Academic LLPs live together based on either a common major (such as engineering or international affairs) or a common academic unit (such as the Undergraduate Business School or the College of Arts and Science).
- **Residential College:** Residential Colleges, or colleges-within-a-college, are attempts to make larger institutions feel smaller by creating cross-sectional communities. Residential Colleges (sometimes called RCs) are more likely than LLPs to have three characteristics (though none of these are, individually, litmus tests): RCs may create multi-year experiences and environments for their students; RCs may integrate academic advising into the hall; RCs may integrate academic coursework into the residential environment.
- **Honors College:** Incoming high school GPA, standardized test scores, or other achievement-based criteria for admittance are defining attributes of most Honors Colleges; some Honors Colleges also have college GPA or other additional requirements students must meet to maintain membership. Honors Colleges are not necessarily residential; some may have a residential option that does not include all Honors College students on that campus.

Theoretical Framework

Using Astin's (1984) Input-Environment-Outcome college impact model, shown in Figure 2 below, we've developed a framework to conceptualize the influence of residential experiences on student outcomes. As Inkelas et al. (2008) described, in Astin's model, outcomes (student characteristics after exposure to college) are influenced by both inputs (demographic and precollege characteristics, beliefs, and expectations) and environments (the various programs, policies, relationships with faculty and peers, and other educational experiences in which students are engaged).

We consider several different inputs and the influence of integrated residential environments - including academic experiences, campus climate, and non-academic/social experiences - on the development of specific academic and social outcomes. See Figure 3 for the specific inputs, environmental aspects, and outcomes measured in ACREO.

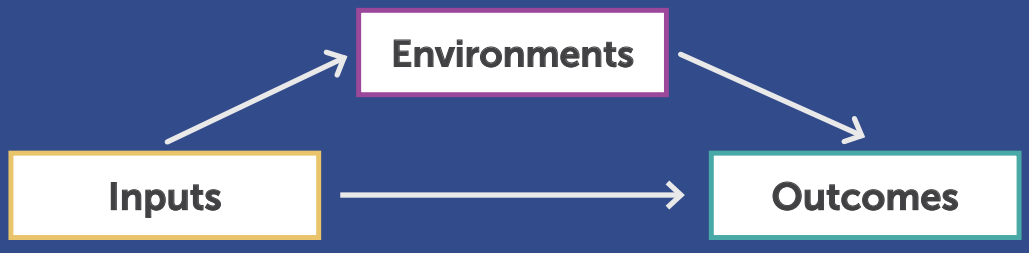


Figure 2: Astin's I-E-O model (1984)

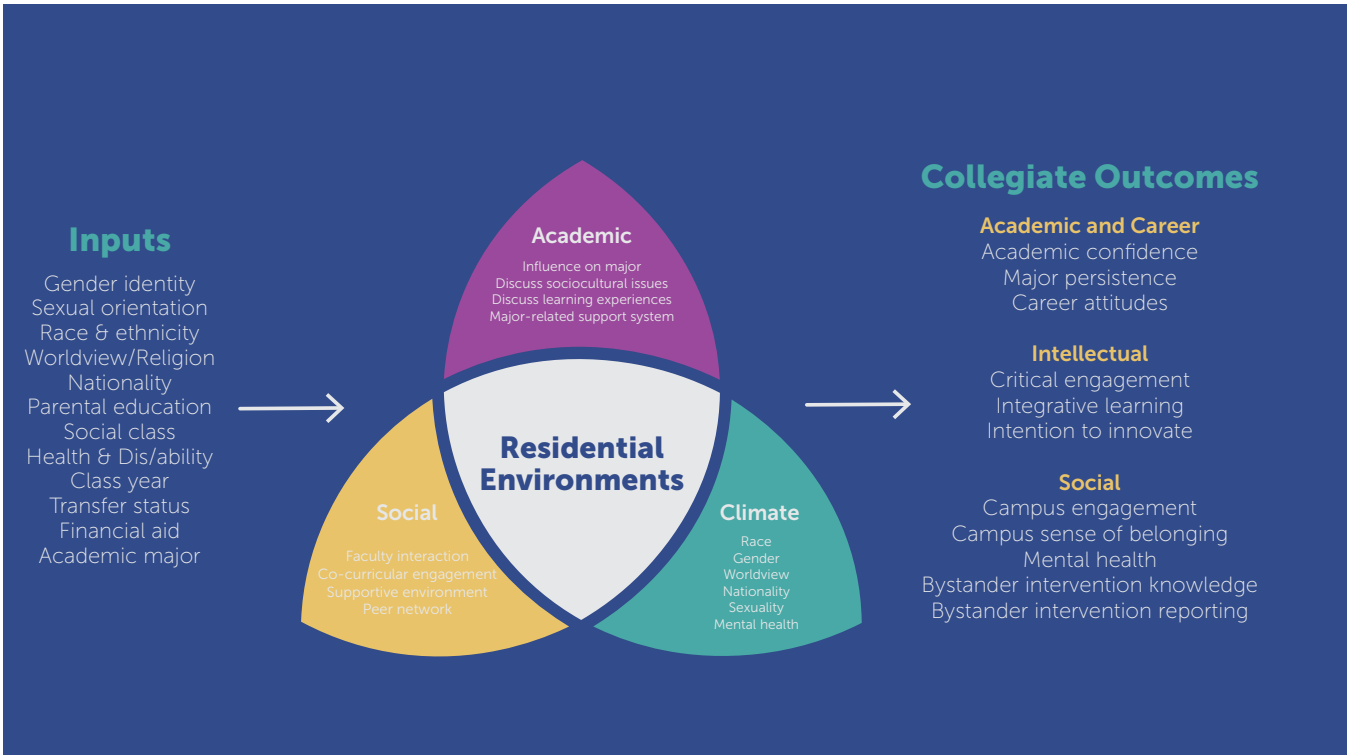


Figure 3: ACREO Conceptual Framework

ACREO Measures of Environments and Outcomes

This study seeks to understand the influence of residential environments on the academic, intellectual, career, and social development of college students. ACREO measures the following aspects of the residential environment and student outcomes, briefly summarized below:

Residential Environments

- **Residential Environment's Influence on Major (updated):** Students reported on the extent to which interactions with peers, faculty, and staff in their residential environment encourages or discourages them in their pursuit of their major.
- **Discussed Learning Experiences with Peers:** Students reported the frequency of discussions about something learned in class with other students outside of class.
- **Discussions with Diverse Peers (new):** Students reported how often they had discussions with peers who had different religious beliefs, political opinions, socioeconomic background, sexual orientation, race or ethnicity, and personal values.
- **Discussed Sociocultural Issues with Peers:** Students reported the frequency of discussions about diversity and major social issues as well as discussions with students who have different values and/or hold different religious worldviews.
- **Major-Related Support System:** Students reported on the extent to which they have access to peer role models and professional mentors who are supporting them in their major as well as the extent to which they feel supported in their major by family.
- **Campus Climate (updated):** Students reported their perception of the campus climate for race, sexuality, nationality, religion, gender, and mental health (new) by rating their perceived faculty attitudes, perceived interactions between students from particular populations and the "majority" group students, and general campus commitment to support their student populations.
- **Faculty Interaction:** Students reported the frequency of discussions with faculty about personal problems, career ambitions, and other non-course-related topics as well as

assignments or extra assistance regarding course content. Students who indicated there were faculty affiliated with their residential environment were asked about interaction with both the residential faculty and faculty generally.

- **Co-curricular Engagement:** On-campus students reported the frequency of participation in events associated with their residential environment, including multicultural programming, cultural outings, and career workshops. All students were asked about their co-curricular programming engagement during their general college experience.
- **Peer Network:** Students were asked to describe the relationships they have with other students in their residential environments, including if they have friends with whom they can study, have intellectual discussions, and who are from diverse backgrounds.
- **Supportive Residential Environment:** Students reported their perceptions of how other students in the residential environment support each other both socially and academically as well as general satisfaction with the environment.

Collegiate Outcomes

- **Academic Confidence:** Students reported their confidence in their ability to persist in their major, excel in their major, complete their major with a B average, persist to graduation despite various obstacles, reach academic goals (e.g. overall B average; graduation with honors), and stay at their current institution.
- **Major Persistence Intention:** Students reported their plans to persist in their major and commitment to graduating from their major.
- **Career Attitudes (updated):** Students reported their confidence in their ability to get a job as well as their perception of how graduating will influence landing a job, getting a good salary, doing meaningful or satisfying or exciting work, and doing work that utilizes skills from their major.
- **Critical Engagement (updated):** Students reported their attitudes toward critical thinking habits of mind, such as questioning a professor, disagreeing with texts, arguing with people, exploring new ideas, and critically analyzing different points of view.
- **Integrative Learning:** Students reported the extent to which they integrate what they're learning by applying it to the real world, reflecting on how they're learning it, putting it in context, connecting it with a personal experience, and extrapolating abstract ideas from concrete observations. This outcome was introduced in 2018.
- **Intention to Innovate:** Students indicate how effective they think they are in identifying new opportunities, developing a strategy to direct their and others' efforts in the direction of realizing new opportunities, acquiring resources necessary to realize a new opportunity, and creating a new entity to take advantage of new opportunities.
- **Campus Engagement:** Students reported the extent to which they are involved with some kind of community, including volunteering for the community and working to make the community better; students also reported on self-efficacy in terms of their impact on community.
- **Campus Sense of Belonging:** Students reported the extent to which they feel comfortable in, are a part of, are committed to, are supported in, and are accepted on campus.
- **Mental Health (new):** Students reported if they struggled with depression, stress, and/or anxiety as well as if they would reach out for help for mental health concerns.
- **Bystander Intervention Knowledge:** Students indicated their familiarity with sexual assault and bullying prevention strategies and resources.
- **Bystander Intention to Report:** Students indicated how likely they are to report sexual misconduct or bullying if they or a peer are the victim.

All measures were initially tested using the pilot data from 2015 and retested again using the most current data. We've determined that all of our scales are reliable, with Cronbach's alphas for most of the factors in the range of 0.85 to 0.97. Only one of the factors - critical engagement - has a Cronbach's alpha below 0.80. Please see the psychometric report on our website for full reliability and validity estimates.

In addition to the measures above, ACREO also reports on several additional experiences and outcomes, including self-reported current GPA, peer connections (how and in what contexts they have connected with new people on campus), drinking habits, and institutional retention intention (whether students plan to return to the same college/university next year). Lastly, we ask students several questions about the level of faculty and staff involvement in their residential environment. The responses to these questions are in Appendix B.

INSTRUMENT AND DATA COLLECTION

Survey Development

The ACREO survey was adapted from the 2007 National Study of Living Learning Programs (NSLLP) and was designed to focus more on assessment and less on research. The length of survey was reduced in 2016 to make it more manageable for students to complete. However, we update the survey every year so that it continues to measure current topics of interest. We updated or added the following factors this year:

- Residential environment's influence on major
- Discussions with diverse peers
- Campus climate for diverse backgrounds
- Career attitudes
- Mental health

We also understand that living environments, specifically residence halls or LLPs/Residential Colleges/Honors Colleges, look different depending on the institution. Therefore, we ask students to self-describe their residential environment to best capture what the perception of their environment looks like.

Likert-Type Scales Used

ACREO measures student residential experiences and outcomes using Likert-type scales, described below. Scale ranges are indicated next to measure title in all tables.

Scales ranging from 1-5 are used when students are asked to rate:

- Confidence (1=Not at all confident; 5=Confident)
- How much they agree or disagree (1=Strongly disagree; 5=Strongly agree)
- Level of encouragement (1=Greatly discouraged; 5=Greatly encouraged)
- How likely they would be to perform an action (1=Very unlikely; 5=Very likely)
- How effective they are in performing a task (1=Extremely ineffective; 5=Extremely effective)

We use a 0-4 scale when measuring how often students participate in activities such as discussing learning with peers and engaging with co-curricular programs (0=Never, 4=Always (Daily)), if they are available. For housing decisions, we use a 1-4 scale (1=Didn't even consider; 4=Very important). All factor scores were created using weighted sums and then scaled to range from 0 to 10 for interpretability.

Timeline

The results for the 2021 sample presented in this report are compared with students who participated in the 2018 and 2019 administrations. The 2018 study invited over 12,890 students at three institutions to participate. In 2019, over 36,600 students at one of five institutions were asked to respond to the ACREO survey. Over 7,700 students at three institutions were invited in 2021. Students had an average of 3 to 4 weeks to complete the survey in all administrations.

Participating Institutions

In 2018, three U.S. public doctoral universities participated in ACREO. Two of these universities participated in the previous year, whereas the third was new to ACREO. During the spring of 2019, five U.S. public doctoral universities participated in the study. Three of these institutions participated in the past (one in 2015 and two in 2017). The two new institutions are located in the Great Lakes and Southeast regions; the 2015 repeat institution is also located in the Southeast. One of the 2017 repeat institutions is also located in the Great Lakes region, with the other 2017 repeat institution located in the Far West.

Three institutions - two new and one repeat from 2018 and 2017 - participated this year. One is a public master's university in the southeast, another is a public doctoral university in the Great Lakes region, and the third is a public doctoral university in the Far West.

Because the survey changed from 2015 to 2016, we do not include results from 2015's pilot study in this analysis. Additionally, due to the ever-changing demographics of college and university students, we also did not include the results from the 2016 and 2017 studies in this analysis. Please refer to those reports for information on past survey administrations.

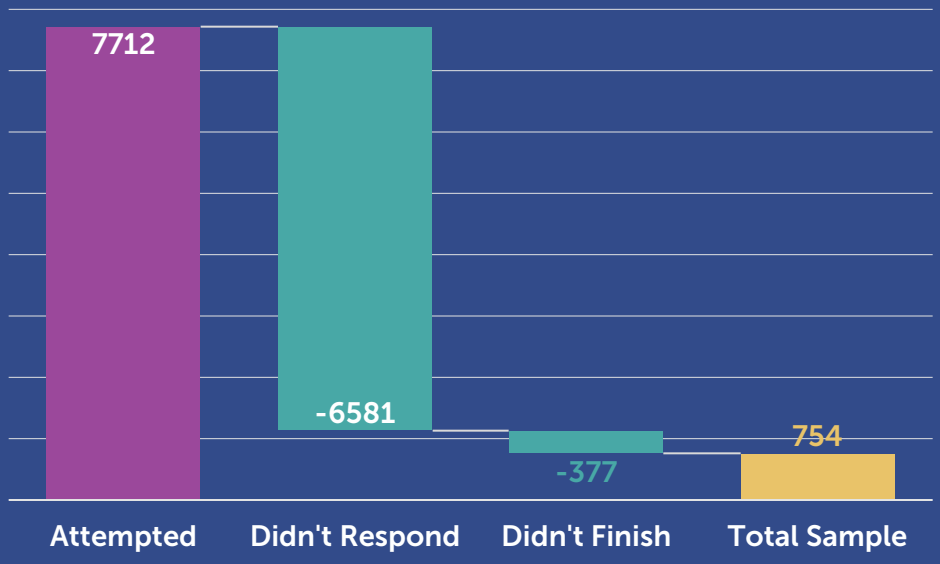
Response Rates

The response rate refers to the percentage of the sampling frame who responded to the survey. It is calculated by dividing the number of responses by the number of people surveyed. Usable data refers to the percentage of respondents who provided responses to at least 80% of the survey.

The entire 2021 ACREO administration experienced a response rate of 14.7%, with a usable data rate of 66.7%. The response rate for 2019 and 2018 administrations is 24.7% (usable data rate of 71.1%) and 23.9% (usable data rate of 63.1%), respectively. Figure 4 provides the usable data rates across the past three years of survey administration.

Nearly 8,000 students were contacted in 2021, but only 754 of them provided usable responses.

This represents a response rate of 14.7% and a usable data rate of 66.7%



Nearly 50,000 students were contacted in 2018 and 2019, but only 8,371 of them provided usable responses.

This represents a response rate of 24.5% and usable data rate of 69.1%

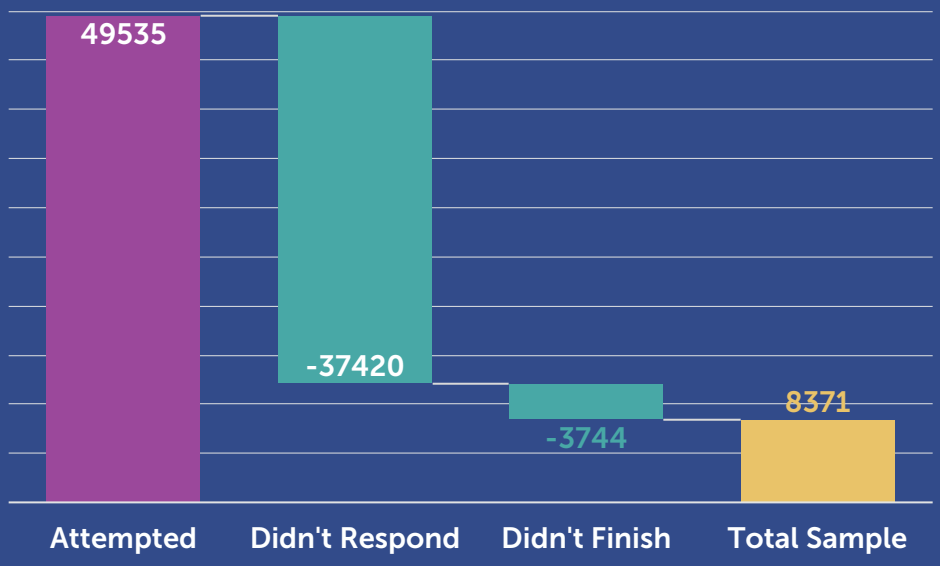


Figure 4: ACREO Usable Data Rates

USING THIS REPORT

Report Sections

This report is divided into three sections based on Astin's I-E-O model: *Section One* provides an overview of the sample students' demographics, *Section Two* focuses on the integrated residential environment described above, and *Section Three* concentrates on the student outcomes measured. In all three sections, we compare the results for the 2021 administration as a whole to those of the 2018 and 2019 administrations as well as how the different residential environments for students in the 2021 sample compare. *Section Four* presents the results of a regression analysis designed to explore the relationships each environment has with the various outcomes. Finally, *Section Five* provides a discussion of the findings and potential implications. We hope this approach will help you make the most meaning of these results.

Important Terminology

In our attempt to make this report as practitioner-friendly as possible, below are some of the terms we use to compare between samples and within the 2021 sample. Appendix A provides more information on how to read the tables and charts used in the report.

- **2021 Sample:** When we refer to the 2021 sample, we mean all students who participated in ACREO during the spring 2021 administration, regardless of residential environment. This group is used when comparing with the 2018 and 2019 sample.
- **2018 and 2019 Sample:** We benchmarked the 2021 data against those students in the 2018 and 2019 sample.
- **Residential Environments:** We arranged the students into residential groups based on how they self-reported their residential environment. Students are grouped in the following ways:
  - » On-campus: Students living on campus are those who self-reported as living in a university-sanctioned residence hall. There are 632 students in this group.
  - » Off-campus: Students living off campus are those who self-reported as not living in a university-sanctioned residence hall. Students in this group are living in residential environments such as Greek-affiliated housing, living off-campus with friends, or commuting from home. There are 122 students in this group.
  - » LLCs: Students in LLCs are those who self-reported as participating in a living learning community. There are 173 students in this group.
  - » TRPs: Students in TRPs are those who live in traditional residential programs, or in residence-life-coordinated buildings but are not involved with a living learning community. There are 459 students in this group.
  - » General LLCs: Students living in general LLCs are those who self-reported as living in a living learning community not organized around a theme or major. There are 54 students in this group.
  - » Honors Programs: Students living in Honors Programs are those who self-reported as living with an honors community or college. There are 48 students in this group.
  - » Theme LLCs: Students living in theme LLCs are those who self-reported as living in an LLC organized around theme (e.g., social identity). There are 30 students in this group.
  - » Academic LLCs: Students living in academic LLCs are those who self-reported as living in an LLC organized around a major or academic discipline. There are 41 students in this group.

- **Factor Score:** A factor score is a measure comprised of related survey items confirmed by a statistical technique known as factor analysis and is used to represent a concept that cannot be measured with one or two questions. We calculated the factor score using Rasch modeling. This process provides a more accurate measure of the factor. Each factor is then scaled to range from 0 to 10 for interpretability.
- **Mean:** The mean (M) reflects the average response for a given item or factor.
- **Standard Deviation:** The standard deviation (SD) is a measure of the amount of variation in relation to the reported mean. Larger SDs are indicative of more inconsistent responses across the sample, while smaller SDs represent individual values closer to the reported mean.
- **t-Test:** *t*-tests are the main test used by ACREO to compare groups; these analytical tests reveal whether or not a significant statistical difference exists between groups. They are used when finding significant differences between institutional mean values and the comparison sample mean values as well as to test the within-group sample mean values. ACREO measures significance at $p < 0.05$.
- **Significance:** Statistical significance indicates whether or not there is a statistical difference between groups. The null hypothesis always assumes there is no statistical difference, though significance values (often referred to as *p*-values) allow researchers to reject the null hypothesis and suggest a difference does exist ($p < 0.05$). Put simply, a *p*-value less than 0.05 means there is a 95% chance the difference found between groups is not simply due to chance. Differences found to be statistically significant at the 95% level are labeled within each table.

  It is important to note that while a given difference might be statistically significant, it may not be practically significant. For example, a study comparing grade point averages among male and female students may find that female students have statistically significant GPA differences, with female students averaging a 3.16 and male students averaging a 3.01. Practically, however, each of these GPA values represent a B average on a standard 4.0 grading scale. In these cases, it is useful to consider practical significance by using effect sizes.

- **Effect size:** We use effect sizes to measure the practical difference found between groups, although ultimately each institution must determine whether or not the differences identified (significant or not) are of practical value. Effect sizes differ from the previously-discussed significance levels in that significance testing determines whether or not statistical differences between groups exist, whereas effect sizing attempts to quantify the magnitude of such difference.

  Although there are a number of different measures for effect size, we rely on Cohen's d since it's a standardized measure of the distance between two means (Cohen, 1988). Cohen suggested effect size measures greater than 0.8 should be classified as large, values between 0.5 and 0.8 should be classified as medium, values between 0.2 and 0.5 should be classified as small, and values less than 0.2 should be classified as trivial. We make use of these suggested labels when comparing means in the report yet

caution against blanket application of these effect size values, as Cohen does. Readers are encouraged to consider effect size differences in light of specific campus and cultural contexts.

- **Regression**: Regression analyses are used to examine the linear relationships between variables while holding other variables constant. We used OLS regressions with standard errors clustered by institution to test the relationships between the residential experiences and desired outcomes including the demographic variables as covariates. Effect coding was used with demographic variables, so inferences should be made between the selected group and the rest of the options for that characteristic (i.e., there is no single reference group; see Mayhew & Simonoff, 2015). Additionally, all continuous variables were standardized, so those coefficients can be interpreted as effect sizes (i.e., Cohen's *d*s)

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SECTION ONE: STUDENT DEMOGRAPHICS

EQUITY-MINDED CONSIDERATIONS

As college and university populations become more diverse, it's essential to consider their characteristics as we measure their experiences and outcomes. While inferences about students based on demographics are beyond the scope of this study, we wanted to present general information on the 2021 sample's characteristics.

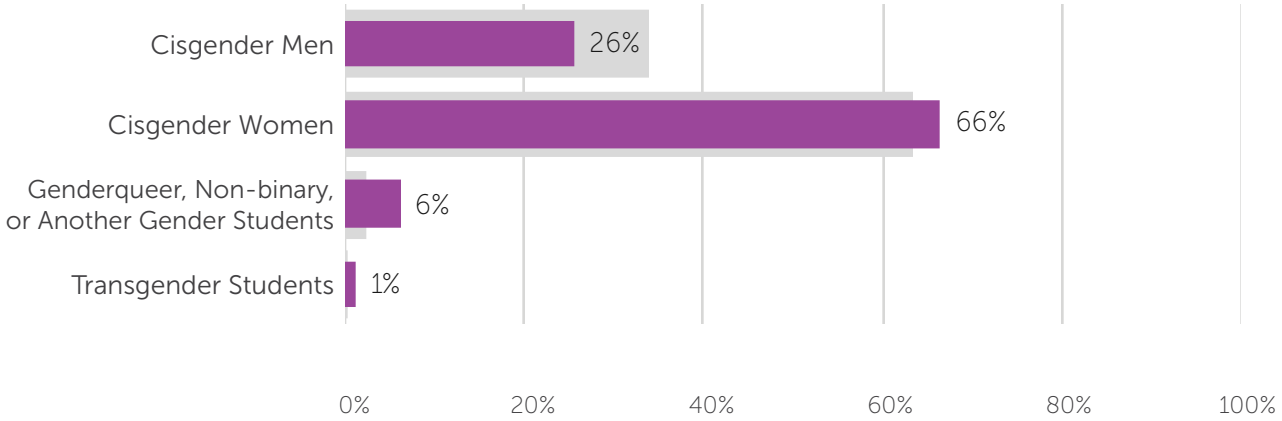
We included this chapter to help lay the groundwork for the following chapters by providing you with an idea of who responded to the survey, but this sample may not be representative of all students on your campus. We suggest you compare the demographics of these students to those on your campus before making generalized conclusions based on this report. Additionally, only a few of the demographic variables are included in this section. Appendix B provides more detailed information on other demographic information, such as worldview/religion, nationality, political views, and health and disability disclosures.

Lastly, our goal with this study is to help institutions produce equity-minded solutions to issues students may experience in residential programs. To that end, we recommend you consider what institutional structures hinder the experiences of traditionally underserved students and how your staff can work toward removing them so all students feel supported in your residential programs.

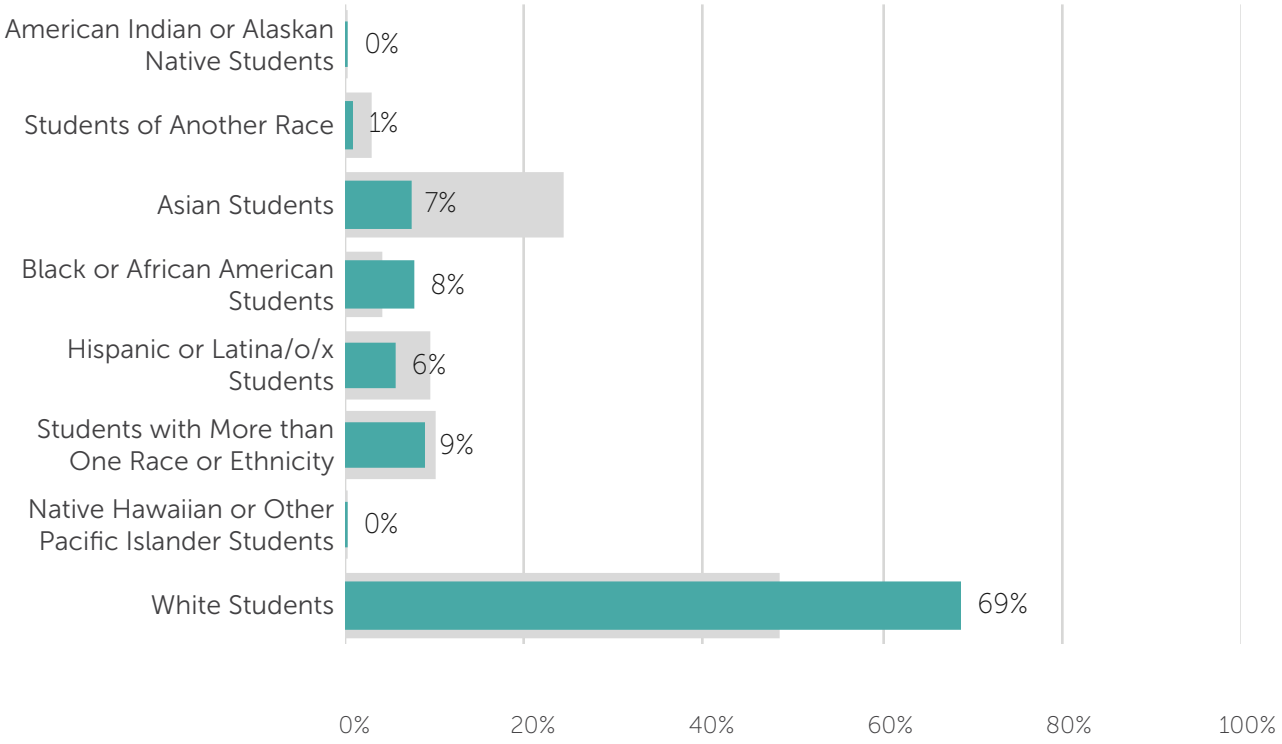
Social Identities

We present gender identity, race, and sexual orientation as student social identities. The 2021 sample data is presented in the color alongside the 2018 and 2019 sample data in gray. Options are listed in alphabetical order so as to not essentialize any one identity over another.

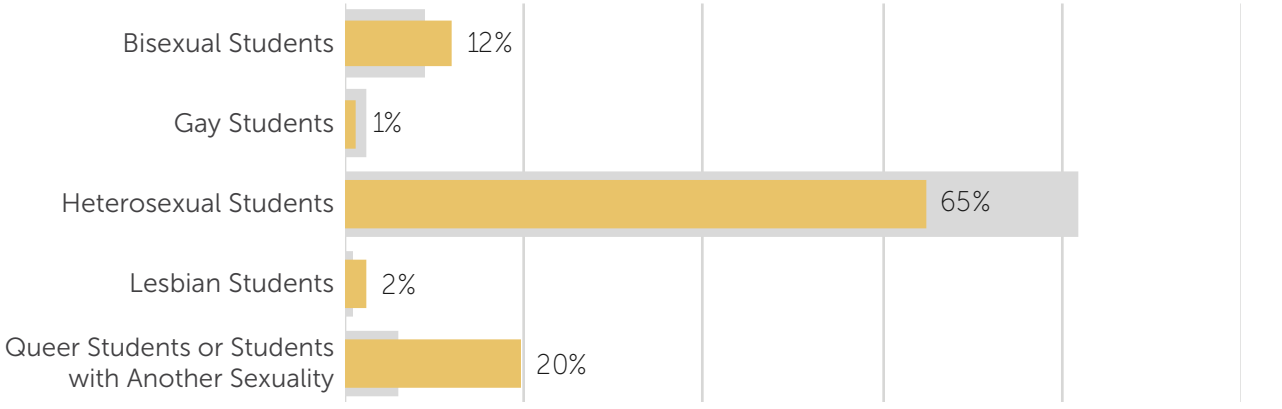
Gender



Race

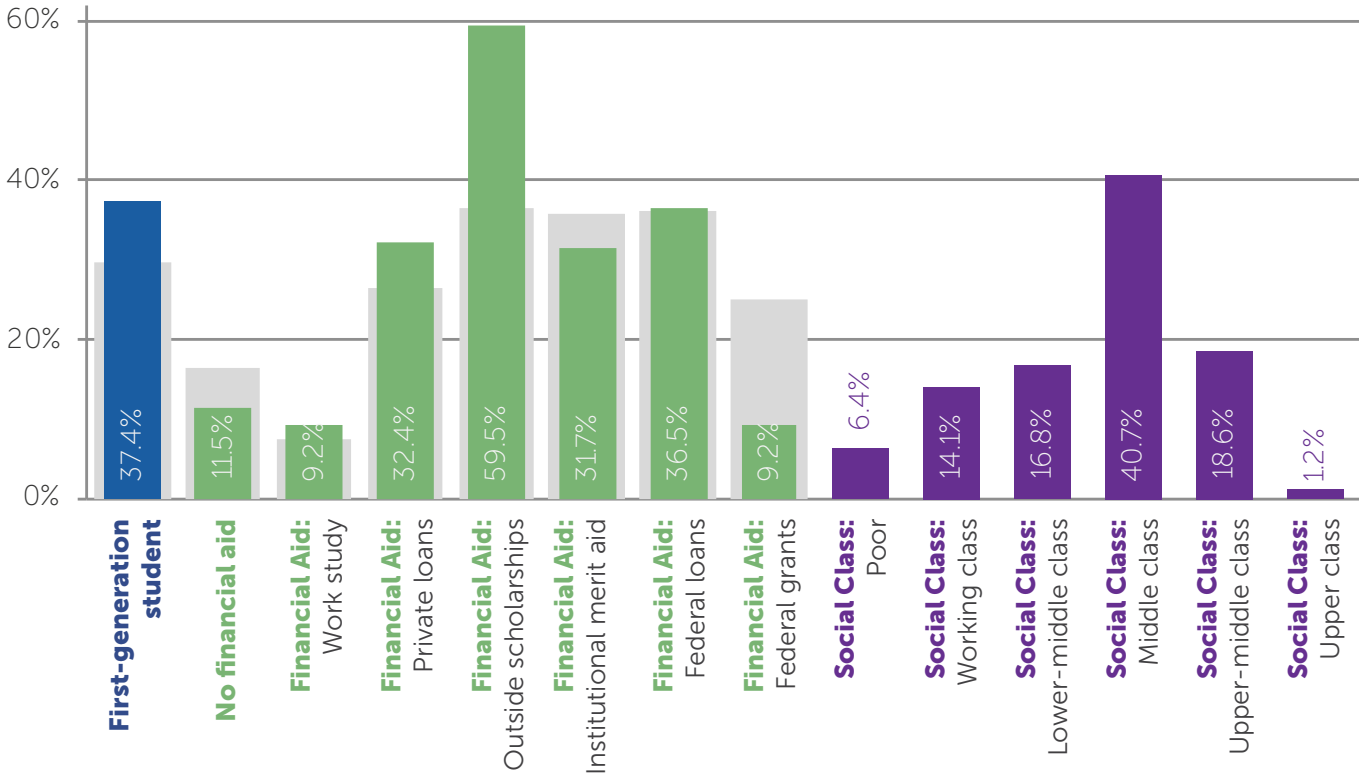


Sexuality



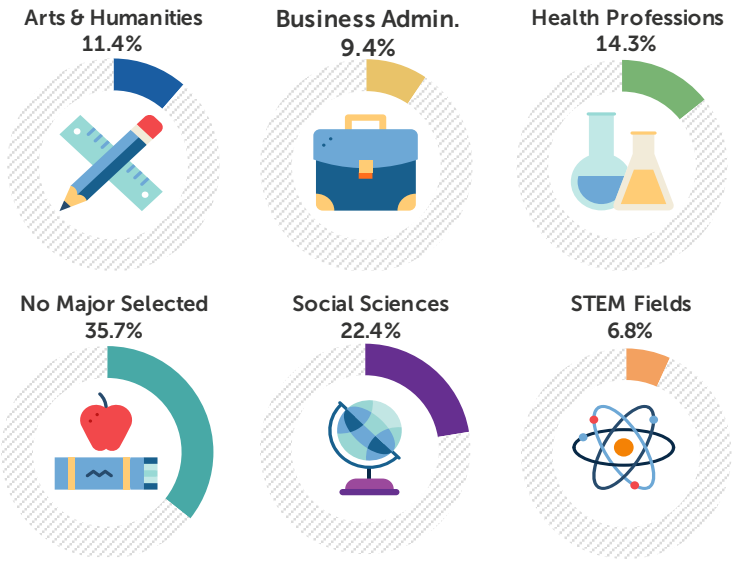
Socio-Academic Background

We consider the student's highest level of parental education, self-reported forms of financial aid, and self-reported social class as socio-academic characteristics. First-generation students are those who are the first in their family to attend a 4-year college or university or have parents/ guardians who attended college, but didn't obtain the 4-year degree. Students in 2018 and 2019 were not asked their social class on the survey.



Collegiate Academic Characteristics

Academic class year and major category are reported as collegiate academic characteristics only for the 2021 sample..



52% are in their first-year

12% transferred from another institution

19% have a second major

SECTION TWO: RESIDENTIAL EXPERIENCES

MEASURING RESIDENTIAL EXPERIENCES

Students experience their residential environments in an integrated way. They don't always make a distinction between learning with their peers or with a faculty/staff member, yet knowing when, where, and with whom a student is learning can be valuable as you implement your programs. Therefore our goal with ACREO is to understand how students perceive the different aspects of their residential programs by exploring their academic experiences, campus climate, and social experiences separately.

The purpose of this chapter is two-fold: 1) to help practitioners understand how the responses for students compare to each other by demographics andresidential environment, and 2) to help practioners understand how the residential experiences of the students in 2021 compare to those in previous years. Although this sample contains a diverse group of students from across the country, we do not want to claim it is nationally representative. However, by benchmarking the 2021 results to previous years we hope you will use these results to better understand in which ways your residential environments excel and in which areas you could improve.

One last remark: Although we use the students' self-selected residential environments in several of the survey questions, we asked students most of these questions in a generalized way because we understand that no two residential environments provide the same experience for residents. This provides us with the ability to benchmark against other institutions and across your residential programs. Therefore, we encourage you to think about the specific programs you have in place and how they contribute to your students' experience.

In this chapter we present findings across the following types of residential experiences:

Academic Experiences

We focus on aspects related to students' academic experiences in a number of ways on the survey. We measure students' attitudes toward their perceived major-related support system, the level to which they discuss learning experiences and sociocultural issues with peers as well as have discussions with diverse peers, and their residential environment's influence on their major. Together these measures demonstrate how students interact with their environment and pinpoint the ones with the most influence.

Campus Climate

How students perceive their campus climate varies based on their race, sexual orientation, worldview, international status, gender identity/expression, and mental health. Starting this year, all students were asked to rate their perception of the campus climate. Questions included how they perceived faculty attitudes, perceived interactions between students from particular populations and the "majority" group students, and general campus commitment to support their student populations.

Faculty & Social Experiences

Non-academic experiences on campus and in the residence halls are just as important to assess as academic ones. We consider aspects of the student experience such as interactions with faculty unrelated to coursework separately from the academically-focused experiences.

Social experiences on campus and in the residence halls are known to help with persistence. The social experiences assessed by ACREO include engagement with co-curricular programming, perception of peer network, and perception of residential environment's support.

2021 ANALYSIS

We discuss in this section which experiences significantly differed for students in the 2021 sample across the different types of residential environments as well as by key subpopulations. Exhibit 2.1 provides a summary of the mean values (and SDs) for each type of residential experience we measured last spring. Exhibits 2.2 through 2.6 display that information by gender, race, sexuality, educational generational status, and academic class year. Exhibits 2.7 through 2.9 summarize the experiences of 2021 students by residential environment. In these tables, we specifically compare students in LLCs to those in TRPs (Exhibit 2.7), on-campus students to off-campus students (Exhibit 2.8), and students in specific LLC types (general, honors colleges, theme, and academic; Exhibit 2.9). Experiences for students mirrored each other, with a few exceptions.

Cisgender women, for instance, perceived to have a stronger major-related support system than cisgender men and those students identifying with another gender (including transgender and non-binary; see Exhibit 2.2). When looking at differences by race, Black students indicated more engagement in residential and general co-curricular programming than white students (see Exhibit 2.3). Turning to sexuality, heterosexual students reported higher scores than their LGBQA+ peers across several experiences, including major-related support system, residential environment's influence on major, and supportive residential environment (see Exhibit 2.4).

Results also suggested that first year students perceived a less supportive system regarding their major and a residential environment with less influence on their major than upper-year students. First-year students also indicated a less supportive residential environment along with less engagement in co-curricular activities than undergraduate students not in their first year (see Exhibit 2.6).

The bulk of the differences in how students perceive their residential experiences were found when we compared residential environments. For instance, students in LLCs perceived a more supportive community for their major than students in traditional residential programs. LLC students also discussed their learning and sociocultural issues as well as convened with diverse peers more often than students in TRPs. Students in LLCs also indicated more interaction with faculty in general in addition to more engagement in residential and general co-curricular

activities than those students in traditional residential programs. Finally, LLC students also perceived a stronger peer network and a more supportive residential environment that TRP students (see Exhibit 2.7).

Turning to campus location, on-campus students perceived a stronger major related support system and a residential environment with more influence on their major than off-campus students. Living on campus was also related to more discussions with diverse peers. On-campus students additionally perceived more positive campus climates for mental health as well as a stronger peer network than those living off-campus (see exhibit 2.8). Finally, results suggest that students in General LLPs engaged more in residential co-curricular activities than Honors Program students (see exhibit 2.9).

ANALYSIS OVER TIME

We also compared the 2021 sample to the previous two administrations (2018 and 2019). Exhibit 2.11 provides a summary of the mean values (and SDs) for each type of residential experience we measured in over the last three years . Residential experiences for students in 2021 mimicked those in previous years across all student experience measures, with a few exceptions.

The largest differences from previous years to 2021 occurred for student discussion with diverse peers and engagement in co-curricular activities across campus. Students surveyed in 2021 indicated lower scores on both experiences than students in the 2018 and 2019 sample.

Significant, but trivial, differences were detected for discussing sociocultural issues with peers; residential environment's influence on major; campus climate for sexuality, worldview, nationality, and gender; general faculty interaction, and perception of peer network. The students in the 2021 reported lower scores across all these experiences when compared to those students surveyed in 2018 and 2019.

Exhibit 2.1

Residential Environment Scores for 2021 Sample

	N	Mean	SD
Academic Experiences			
Perception of major-related support system	753	5.94	1.85
Discussed learning experiences with peers	753	4.60	2.64
Discussions with diverse peers	754	4.20	2.39
Discussed sociocultural issues with peers	754	4.49	2.87
Residential environment's influence on major	754	5.96	1.83
Campus Climate			
Campus climate for race	754	5.37	0.72
Campus climate for sexuality	754	5.46	0.70
Campus climate for worldview	754	5.26	0.74
Campus climate for nationality	754	2.60	1.13
Campus climate for gender	754	5.37	0.67
Campus climate for mental health	754	5.41	2.00
Faculty & Social Experiences			
Residential non-academic faculty interaction	156	1.90	1.90
General non-academic faculty interaction	536	3.22	1.72
Residential co-curricular engagement	599	1.98	1.81
General co-curricular engagement	608	2.69	1.76
Perception of peer network	754	5.22	2.32
Supportive residential environment	754	5.18	2.21

Exhibit 2.2

Residential Experiences for 2021 Sample: Differences by Gender

Perception of major-related support system	N(%)	M	SD	Sig
1. Cisgender men	193(25.6%)	5.63	1.91	2
2. Cisgender women	500(66.3%)	6.13	1.84	1,3
3. Another gender identity	54(7.2%)	5.38	1.54	2
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	4.45	2.70	
2. Cisgender women	501(66.4%)	4.71	2.60	
3. Another gender identity	53(7.0%)	4.05	2.74	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	4.12	2.61	
2. Cisgender women	501(66.4%)	4.23	2.28	
3. Another gender identity	54(7.2%)	4.16	2.64	
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	4.26	2.95	
2. Cisgender women	501(66.4%)	4.62	2.80	
3. Another gender identity	54(7.2%)	3.94	3.09	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	6.02	1.94	
2. Cisgender women	501(66.4%)	5.97	1.81	
3. Another gender identity	54(7.2%)	5.65	1.68	
Campus climate for gender	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.43	0.81	
2. Cisgender women	501(66.4%)	5.35	0.62	
3. Another gender identity	54(7.2%)	5.34	0.51	
Residential faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	27(3.6%)	2.11	2.40	
2. Cisgender women	120(15.9%)	1.93	1.79	
3. Another gender identity	9(1.2%)	0.92	1.39	
General faculty interaction	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	133(17.6%)	3.06	1.90	
2. Cisgender women	361(47.9%)	3.25	1.65	
3. Another gender identity	36(4.8%)	3.54	1.77	

Residential co-curricular engagement	N (%)	M	SD	Sig
1. Cisgender men	154(20.4%)	1.97	1.87	
2. Cisgender women	401(53.2%)	2.00	1.80	
3. Another gender identity	42(5.6%)	1.92	1.78	
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	156(20.7%)	2.50	1.98	
2. Cisgender women	407(54.0%)	2.76	1.69	
3. Another gender identity	43(5.7%)	2.76	1.56	
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.11	2.53	
2. Cisgender women	501(66.4%)	5.30	2.26	
3. Another gender identity	54(7.2%)	4.87	1.98	
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.18	2.44	
2. Cisgender women	501(66.4%)	5.20	2.12	
3. Another gender identity	54(7.2%)	4.99	2.22	

**Note*: The significance (Sig) column denotes significant mean differences between groups within a single category. If the column is empty, there is no significant difference between the groups. If significant mean differences exist, the number(s) listed indicate where these differences are observed.

Exhibit 2.3

Residential Experiences for 2021 Sample: Differences by Race

Perception of major-related support system	N(%)	M	SD	Sig
1. Asian/Pacific Islander students	57(7.6%)	5.93	1.57	
2. Black/African American students	59(7.8%)	5.63	1.59	
3. Hispanic/Latina/o/x students	43(5.7%)	6.30	2.02	
4. White students	518(68.7%)	5.95	1.92	
5. Students with More than One Race	66(8.8%)	5.97	1.63	
6. Students of Another Race (including Native American)	10(1.3%)	6.05	1.94	
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	4.85	2.56	
2. Black/African American students	59(7.8%)	4.11	3.01	
3. Hispanic/Latina/o/x students	43(5.7%)	4.55	2.70	
4. White students	518(68.7%)	4.62	2.64	
5. Students with More than One Race	66(8.8%)	4.65	2.34	
6. Students of Another Race (including Native American)	10(1.3%)	4.76	2.45	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	3.85	2.33	
2. Black/African American students	59(7.8%)	4.01	2.30	
3. Hispanic/Latina/o/x students	43(5.7%)	4.00	2.50	
4. White students	519(68.8%)	4.28	2.37	
5. Students with More than One Race	66(8.8%)	4.19	2.69	
6. Students of Another Race (including Native American)	10(1.3%)	3.88	1.97	
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	4.48	2.84	
2. Black/African American students	59(7.8%)	4.23	3.14	
3. Hispanic/Latina/o/x students	43(5.7%)	4.60	3.16	
4. White students	519(68.8%)	4.48	2.80	
5. Students with More than One Race	66(8.8%)	4.72	3.14	
6. Students of Another Race (including Native American)	10(1.3%)	4.15	2.20	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	6.58	1.82	
2. Black/African American students	59(7.8%)	6.29	1.91	
3. Hispanic/Latina/o/x students	43(5.7%)	6.11	1.69	
4. White students	519(68.8%)	5.86	1.80	
5. Students with More than One Race	66(8.8%)	5.85	2.00	
6. Students of Another Race (including Native American)	10(1.3%)	5.62	1.99	

Campus climate for race	N(%)	M	SD	Sig
1. Asian/Pacific Islander students	57(7.6%)	5.53	1.05	
2. Black/African American students	59(7.8%)	5.33	0.86	
3. Hispanic/Latina/o/x students	43(5.7%)	5.39	0.80	
4. White students	519(68.8%)	5.35	0.66	
5. Students with More than One Race	66(8.8%)	5.38	0.72	
6. Students of Another Race (including Native American)	10(1.3%)	5.08	0.61	
Residential faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	12(1.6%)	1.72	1.67	
2. Black/African American students	15(2.0%)	2.31	2.17	
3. Hispanic/Latina/o/x students	14(1.9%)	1.88	2.09	
4. White students	101(13.4%)	1.80	1.84	
5. Students with More than One Race	13(1.7%)	2.17	2.05	
6. Students of Another Race (including Native American)	1(0.1%)	.	.	
General faculty interaction	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	45(6.0%)	3.59	1.80	
2. Black/African American students	51(6.8%)	3.62	1.92	
3. Hispanic/Latina/o/x students	31(4.1%)	3.17	1.58	
4. White students	355(47.1%)	3.14	1.67	
5. Students with More than One Race	46(6.1%)	3.07	1.88	
6. Students of Another Race (including Native American)	8(1.1%)	3.70	1.62	
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	38(5.0%)	2.00	1.80	
2. Black/African American students	49(6.5%)	2.67	1.77	4
3. Hispanic/Latina/o/x students	34(4.5%)	2.51	2.40	
4. White students	417(55.3%)	1.86	1.75	2
5. Students with More than One Race	54(7.2%)	1.93	1.82	
6. Students of Another Race (including Native American)	7(0.9%)	2.10	2.08	
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	37(4.9%)	3.04	2.15	
2. Black/African American students	48(6.4%)	3.40	1.68	4
3. Hispanic/Latina/o/x students	34(4.5%)	3.03	2.03	
4. White students	427(56.6%)	2.55	1.68	2
5. Students with More than One Race	55(7.3%)	2.74	1.73	
6. Students of Another Race (including Native American)	7(0.9%)	2.97	2.09	

Perception of peer network	N (%)	M	SD	Sig
1. Asian/Pacific Islander students	57(7.6%)	5.44	2.38	
2. Black/African American students	59(7.8%)	4.81	2.24	
3. Hispanic/Latina/o/x students	43(5.7%)	5.11	2.52	
4. White students	519(68.8%)	5.26	2.30	
5. Students with More than One Race	66(8.8%)	5.09	2.43	
6. Students of Another Race (including Native American)	10(1.3%)	5.31	1.56	
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	5.60	2.23	
2. Black/African American students	59(7.8%)	4.83	2.05	
3. Hispanic/Latina/o/x students	43(5.7%)	5.53	1.90	
4. White students	519(68.8%)	5.14	2.23	
5. Students with More than One Race	66(8.8%)	5.14	2.42	
6. Students of Another Race (including Native American)	10(1.3%)	5.30	2.14	

Exhibit 2.4

Residential Experiences for 2021 Sample: Differences by Sexuality

Perception of major-related support system	N(%)	M	SD	Sig
1. LGBQA+ students	266(35.3%)	5.67	1.60	2
2. Heterosexual students	487(64.6%)	6.10	1.96	1
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	265(35.1%)	4.51	2.57	
2. Heterosexual students	488(64.7%)	4.65	2.68	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	4.41	2.30	
2. Heterosexual students	488(64.7%)	4.08	2.43	
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	4.62	2.89	
2. Heterosexual students	488(64.7%)	4.42	2.86	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.76	1.77	2
2. Heterosexual students	488(64.7%)	6.07	1.86	1
Campus climate for sexuality	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.46	0.63	
2. Heterosexual students	488(64.7%)	5.46	0.74	
Residential faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	52(6.9%)	1.66	1.74	
2. Heterosexual students	104(13.8%)	2.02	1.97	
General faculty interaction	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	189(25.1%)	3.04	1.65	
2. Heterosexual students	347(46.0%)	3.32	1.75	
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	208(27.6%)	1.80	1.68	
2. Heterosexual students	391(51.9%)	2.08	1.88	
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	213(28.2%)	2.54	1.67	
2. Heterosexual students	395(52.4%)	2.78	1.80	
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.07	2.26	
2. Heterosexual students	488(64.7%)	5.30	2.34	
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	4.94	2.27	2
2. Heterosexual students	488(64.7%)	5.31	2.17	1

Exhibit 2.5

Residential Experiences for 2021 Sample: Differences by Education Generation Status

Perception of major-related support system	N(%)	M	SD	Sig
1. First-generation students	281(37.3%)	6.07	2.03	
2. Continuing-generation students	452(59.9%)	5.89	1.70	
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	281(37.3%)	4.39	2.79	
2. Continuing-generation students	452(59.9%)	4.71	2.55	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	4.04	2.56	
2. Continuing-generation students	452(59.9%)	4.31	2.28	
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	4.30	2.97	
2. Continuing-generation students	452(59.9%)	4.61	2.79	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.99	2.00	
2. Continuing-generation students	452(59.9%)	5.95	1.71	
Residential faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	74(9.8%)	2.00	1.98	
2. Continuing-generation students	80(10.6%)	1.75	1.80	
General faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	212(28.1%)	3.21	1.90	
2. Continuing-generation students	311(41.2%)	3.22	1.61	
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	216(28.6%)	1.99	1.80	
2. Continuing-generation students	371(49.2%)	1.95	1.80	
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	216(28.6%)	2.70	1.64	
2. Continuing-generation students	380(50.4%)	2.65	1.79	
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.20	2.49	
2. Continuing-generation students	452(59.9%)	5.26	2.18	
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.16	2.22	
2. Continuing-generation students	452(59.9%)	5.20	2.19	

Exhibit 2.6

Residential Experiences for 2021 Sample: Differences by Academic Class Year

Perception of major-related support system	N(%)	M	SD	Sig
1. First-year students	389(51.6%)	5.75	1.85	2
2. All other undergraduate students	364(48.3%)	6.15	1.82	1
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	4.72	2.49	
2. All other undergraduate students	364(48.3%)	4.47	2.79	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	4.22	2.31	
2. All other undergraduate students	365(48.4%)	4.17	2.47	
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	4.57	2.78	
2. All other undergraduate students	365(48.4%)	4.40	2.97	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.78	1.71	2
2. All other undergraduate students	365(48.4%)	6.15	1.94	1
Residential faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	94(12.5%)	1.91	1.81	
2. All other undergraduate students	62(8.2%)	1.88	2.04	
General faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	287(38.1%)	3.25	1.61	
2. All other undergraduate students	249(33.0%)	3.19	1.84	
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	308(40.8%)	1.78	1.70	2
2. All other undergraduate students	291(38.6%)	2.20	1.90	1
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	314(41.6%)	2.34	1.70	2
2. All other undergraduate students	294(39.0%)	3.07	1.74	1
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.20	2.38	
2. All other undergraduate students	365(48.4%)	5.24	2.25	
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.00	2.22	2
2. All other undergraduate students	365(48.4%)	5.36	2.20	1

Exhibit 2.7

Residential Experiences for 2021 Sample: Differences by Residential Environment (LLCs v. TRPs)

Perception of major-related support system	N(%)	M	SD	Sig
1. Living learning communities	173(22.9%)	6.25	1.78	2
2. Traditional residential programs	458(60.7%)	5.91	1.85	1
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.31	2.37	2
2. Traditional residential programs	458(60.7%)	4.35	2.68	1
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	4.89	2.13	2
2. Traditional residential programs	459(60.9%)	4.08	2.43	1
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.41	2.61	2
2. Traditional residential programs	459(60.9%)	4.18	2.92	1
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.34	1.65	2
2. Traditional residential programs	459(60.9%)	5.92	1.79	1
Campus climate for race	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.47	0.76	
2. Traditional residential programs	459(60.9%)	5.35	0.75	
Campus climate for sexuality	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.54	0.68	
2. Traditional residential programs	459(60.9%)	5.44	0.72	
Campus climate for worldview	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.34	0.82	
2. Traditional residential programs	459(60.9%)	5.22	0.72	
Campus climate for nationality	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	2.71	1.18	
2. Traditional residential programs	459(60.9%)	2.57	1.16	
Campus climate for gender	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.44	0.71	
2. Traditional residential programs	459(60.9%)	5.34	0.67	
Campus climate for mental health	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.58	2.05	
2. Traditional residential programs	459(60.9%)	5.43	2.00	

Residential faculty interaction	N(%)	M	SD	Sig
1. Living learning communities	52(6.9%)	1.91	1.92	
2. Traditional residential programs	104(13.8%)	1.89	1.89	
General faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	121(16.0%)	3.59	1.69	2
2. Traditional residential programs	299(39.7%)	3.08	1.79	1
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	171(22.7%)	2.61	1.76	2
2. Traditional residential programs	428(56.8%)	1.73	1.78	1
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	172(22.8%)	3.15	1.71	2
2. Traditional residential programs	436(57.8%)	2.51	1.74	1
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.01	2.21	2
2. Traditional residential programs	459(60.9%)	5.11	2.31	1
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.08	2.42	2
2. Traditional residential programs	459(60.9%)	4.91	2.04	1

Exhibit 2.8

Collegiate Outcomes for 2021 Sample: Differences by Residential Environment (On v. Off campus)

Perception of major-related support system	N(%)	M	SD	Sig
1. On-campus students	631(83.7%)	6.00	1.84	2
2. Off-campus students	122(16.2%)	5.63	1.90	1
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	631(83.7%)	4.61	2.64	
2. Off-campus students	122(16.2%)	4.54	2.65	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	4.30	2.38	2
2. Off-campus students	122(16.2%)	3.66	2.37	1
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	4.52	2.89	
2. Off-campus students	122(16.2%)	4.33	2.80	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	6.04	1.76	2
2. Off-campus students	122(16.2%)	5.53	2.11	1
Campus climate for race	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.38	0.75	
2. Off-campus students	122(16.2%)	5.29	0.55	
Campus climate for sexuality	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.47	0.71	
2. Off-campus students	122(16.2%)	5.43	0.66	
Campus climate for worldview	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.25	0.75	
2. Off-campus students	122(16.2%)	5.27	0.67	
Campus climate for nationality	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	2.61	1.17	
2. Off-campus students	122(16.2%)	2.53	0.93	
Campus climate for gender	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.36	0.68	
2. Off-campus students	122(16.2%)	5.37	0.59	
Campus climate for mental health	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.47	2.02	2
2. Off-campus students	122(16.2%)	5.07	1.88	1

Residential faculty interaction	N(%)	M	SD	Sig
1. On-campus students	156(20.7%)	1.90	1.90	
2. Off-campus students	0(0.0%)	.	.	
General faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	420(55.7%)	3.23	1.77	
2. Off-campus students	116(15.4%)	3.21	1.51	
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	599(79.4%)	1.98	1.81	
2. Off-campus students	0(0.0%)	.	.	
General co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	608(80.6%)	2.69	1.76	
2. Off-campus students	0(0.0%)	.	.	
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.36	2.32	2
2. Off-campus students	122(16.2%)	4.50	2.16	1
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.23	2.21	
2. Off-campus students	122(16.2%)	4.89	2.22	

Exhibit 2.9

Residential Experiences for 2021 Sample: Differences by LLP Type

Perception of major-related support system	N(%)	M	SD	Sig
1. General LLP	54(7.2%)	6.32	1.91	
2. Honors Programs	48(6.4%)	6.13	1.71	
3. Theme LLPs	30(4.0%)	5.90	1.32	
4. Academic LLPs	41(5.4%)	6.55	1.98	
Discussed learning experiences with peers	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.51	2.57	
2. Honors Programs	48(6.4%)	5.02	2.13	
3. Theme LLPs	30(4.0%)	5.09	2.62	
4. Academic LLPs	41(5.4%)	5.53	2.22	
Discussions with diverse peers	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.23	2.10	
2. Honors Programs	48(6.4%)	4.95	1.84	
3. Theme LLPs	30(4.0%)	4.84	2.19	
4. Academic LLPs	41(5.4%)	4.41	2.42	
Discuss socio-cultural issues with peers	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.75	2.53	
2. Honors Programs	48(6.4%)	5.19	2.49	
3. Theme LLPs	30(4.0%)	5.51	2.87	
4. Academic LLPs	41(5.4%)	5.13	2.67	
Residential environment's influence on major	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.53	1.62	
2. Honors Programs	48(6.4%)	5.91	1.45	
3. Theme LLPs	30(4.0%)	6.44	1.78	
4. Academic LLPs	41(5.4%)	6.52	1.78	
Campus climate for race	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.50	0.73	
2. Honors Programs	48(6.4%)	5.33	0.47	
3. Theme LLPs	30(4.0%)	5.28	0.44	
4. Academic LLPs	41(5.4%)	5.73	1.12	
Campus climate for sexuality	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.53	0.79	
2. Honors Programs	48(6.4%)	5.43	0.47	
3. Theme LLPs	30(4.0%)	5.49	0.40	
4. Academic LLPs	41(5.4%)	5.70	0.87	

Campus climate for worldview	N(%)	M	SD	Sig
1. General LLP	54(7.2%)	5.45	1.03	
2. Honors Programs	48(6.4%)	5.19	0.51	
3. Theme LLPs	30(4.0%)	5.10	0.56	
4. Academic LLPs	41(5.4%)	5.53	0.92	
Campus climate for nationality	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	2.90	1.44	
2. Honors Programs	48(6.4%)	2.43	0.77	
3. Theme LLPs	30(4.0%)	2.42	0.64	
4. Academic LLPs	41(5.4%)	2.98	1.40	
Campus climate for gender	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.50	0.85	
2. Honors Programs	48(6.4%)	5.32	0.41	
3. Theme LLPs	30(4.0%)	5.24	0.40	
4. Academic LLPs	41(5.4%)	5.67	0.90	
Campus climate for mental health	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.99	1.86	
2. Honors Programs	48(6.4%)	5.21	2.24	
3. Theme LLPs	30(4.0%)	5.35	1.94	
4. Academic LLPs	41(5.4%)	5.65	2.11	
Residential faculty interaction	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	19(2.5%)	2.15	1.68	
2. Honors Programs	8(1.1%)	2.09	1.41	
3. Theme LLPs	12(1.6%)	1.25	1.99	
4. Academic LLPs	13(1.7%)	2.06	2.47	
General faculty interaction	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	39(5.2%)	3.73	1.76	
2. Honors Programs	28(3.7%)	3.69	1.30	
3. Theme LLPs	23(3.1%)	3.46	1.60	
4. Academic LLPs	31(4.1%)	3.44	2.02	
Residential co-curricular engagement	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	53(7.0%)	3.09	1.71	2
2. Honors Programs	48(6.4%)	2.08	1.68	1
3. Theme LLPs	30(4.0%)	2.57	1.51	
4. Academic LLPs	40(5.3%)	2.63	1.96	

General co-curricular engagement	N (%)	M	SD	Sig
1. General LLP	53(7.0%)	3.29	1.36	
2. Honors Programs	48(6.4%)	2.92	1.74	
3. Theme LLPs	30(4.0%)	3.49	1.35	
4. Academic LLPs	41(5.4%)	2.99	2.24	
Perception of peer network	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.29	2.31	
2. Honors Programs	48(6.4%)	5.76	1.98	
3. Theme LLPs	30(4.0%)	5.67	1.85	
4. Academic LLPs	41(5.4%)	6.20	2.57	
Supportive residential environment	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.39	2.63	
2. Honors Programs	48(6.4%)	5.74	2.26	
3. Theme LLPs	30(4.0%)	5.63	2.25	
4. Academic LLPs	41(5.4%)	6.39	2.43	

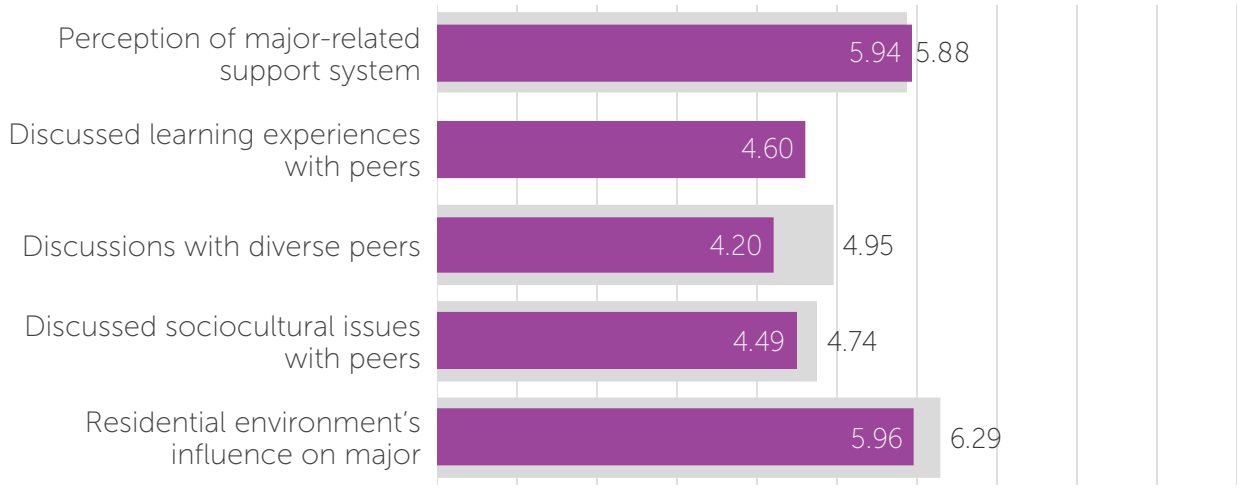
Exhibit 2.10

Residential Environment Scores for 2021 Sample Benchmarking

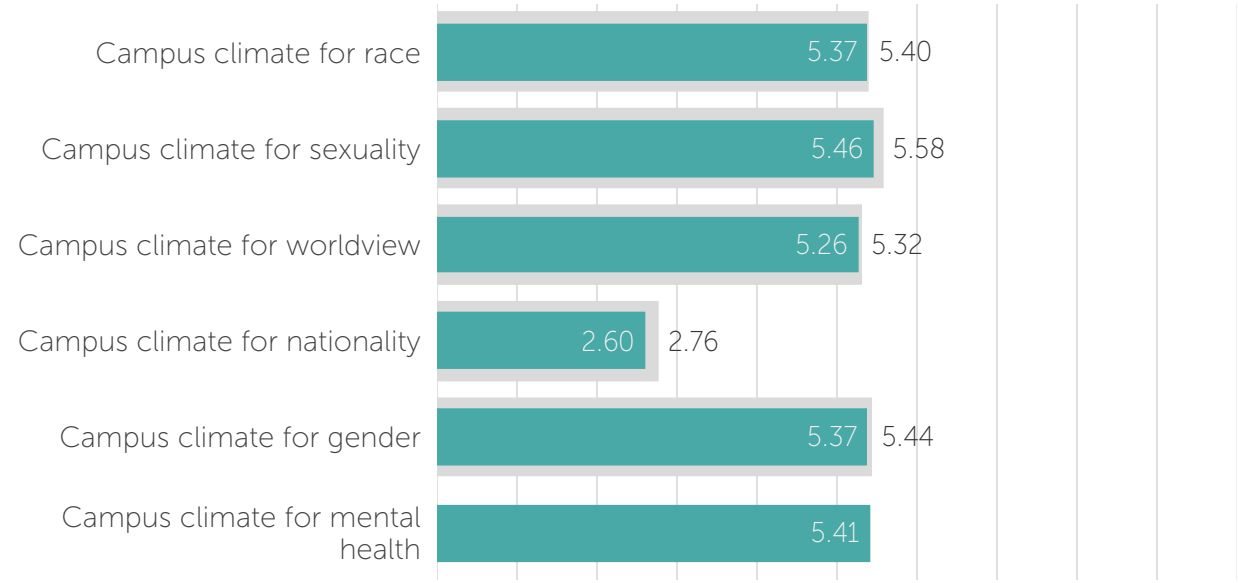
	2021 Sample		2018 & 2019 Sample		
	Mean	SD	Mean	SD	ES
Academic Experiences					
Perception of major-related support system	5.94	1.85	5.88	1.71	
Discussed learning experiences with peers	4.60	2.64	.	.	.
Discussions with diverse peers	4.20	2.39	4.95	2.03	○
Discussed sociocultural issues with peers	4.49	2.87	4.74	2.61	–
Residential environment's influence on major	5.96	1.83	6.29	1.98	–
Campus Climate					
Campus climate for race	5.37	0.72	5.40	0.67	
Campus climate for sexuality	5.46	0.70	5.58	0.69	–
Campus climate for worldview	5.26	0.74	5.32	0.75	–
Campus climate for nationality	2.60	1.13	2.76	1.06	–
Campus climate for gender	5.37	0.67	5.44	0.66	–
Campus climate for mental health	5.41	2.00	.	.	.
Faculty & Social Experiences					
Residential non-academic faculty interaction	1.90	1.90	2.20	2.17	
General non-academic faculty interaction	3.22	1.72	3.50	1.65	–
Residential co-curricular engagement	1.98	1.81	2.12	1.86	
General co-curricular engagement	2.69	1.76	3.30	1.61	○
Perception of peer network	5.22	2.32	5.49	2.25	–
Supportive residential environment	5.18	2.21	5.29	2.25	

Effect size (ES) indicators included if $p < 0.05$.
– represents a trivial effect (Cohen's d <.20); ○ represents a small effect (Cohen's d between .20 and .49), ◐ represents a medium effect (Cohen's d between .50 and .79); ● represents a large effect (Cohen's d > .80)

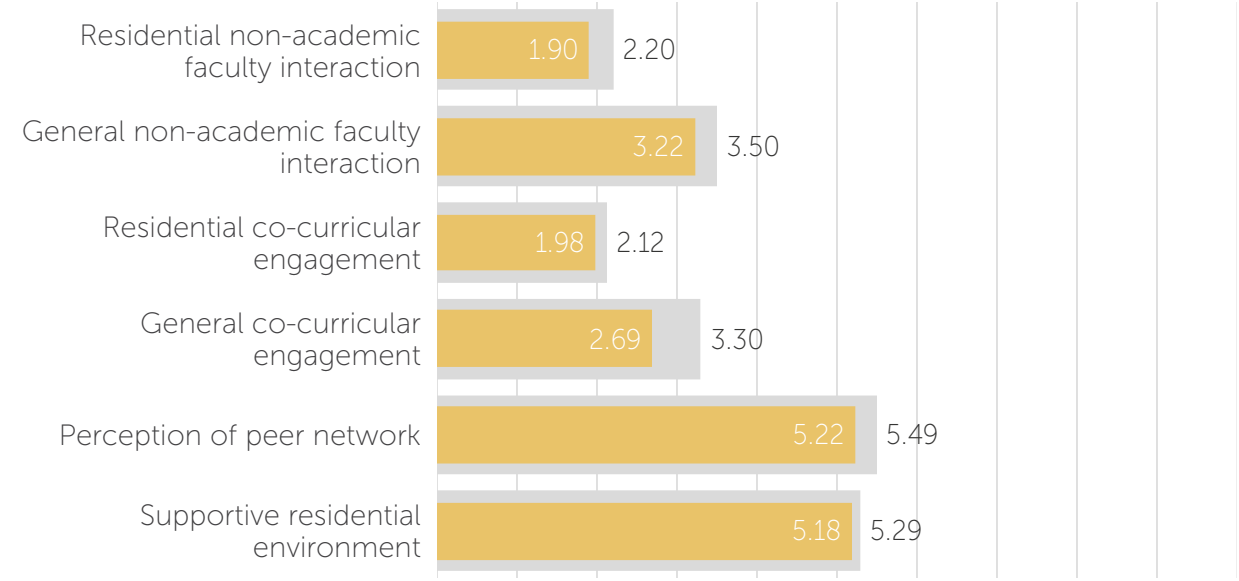
Academic Experiences



Campus Climate



Faculty & Social Experiences



SECTION THREE: COLLEGIATE OUTCOMES

MEASURING STUDENT OUTCOMES

Student outcomes across both academic and social domains are the characteristics students develop through participation in their residential environment. We measured student outcomes to determine whether or not students achieve the results we think they should by living in residence halls and living learning programs. Most residential environments, and specifically LLPs, have an academic component, which is why we measured outcomes such as academic confidence, major persistence, and career attitudes, as well as critical engagement and integrative learning. We also assessed social outcomes through questions related to sense of belonging, campus engagement, and bystander intervention intentions.

The purpose of this chapter is to explore how student outcomes differ by student demographics as well as residential environments. We follow the same format as the previous two chapters by first considering the differences within the 2021 sample before diving into the comparison with previous years. Remember, although the students in the sample are not nationally representative, these results give us a good idea of how current students compare to students in previous years in terms of student outcomes as well as how specific residential environments compare to each other.

In this chapter we present findings for the following academic, intellectual, and social outcomes:

Academic and Career Outcomes

To measure academic confidence, we asked students to rate their perceived confidence to remain enrolled, excel, and complete the upper level required courses with an overall grade point average of B or better in their intended major. We also included measures of students' intent to persist in their major by asking about their plans to remain enrolled in their intended major, thoughts about whether earning a bachelor's degree in their intended major is a realistic goal, and commitment to getting a college degree in their intended major. We measure career attitudes by asking students to rate their confidence in their ability to get a job as well as the extent to which they think that graduating with an undergraduate degree will allow them to get a good job (or graduate school) offer, do work that they would find satisfying, and apply skills developed in their major to their job.

Intellectual Outcomes

The intellectual outcomes we measured include critical engagement, integrative learning, and intention to innovate. These outcomes are associated with academic and intellectual development, but aren't directly related to students' major choice and career attitudes.

Social Outcomes

When we measured sense of belonging, we asked students questions related to their comfort, commitment, support, and acceptance on campus. Campus engagement, however, is measured by asking students to indicate the importance of playing an active role in their community, their belief that their work has a greater purpose for the larger community, and how much they work with others to make their community a better place. We also inquired about students' perception of their own mental health (stress, anxiety, and depression) as well as their knowledge of and willingness to seek help for mental health concerns. Finally, we asked students about their bystander reporting knowledge and intention after an event occurs.

2021 ANALYSIS

As noted in Section Two, we discuss in this section which outcomes significantly differed for students in 2021 across the various key demographics as well as the different types of residential environments. Exhibit 3.1 provides a summary of the mean values (and SDs) for each student outcome we measured in 2021. Exhibits 3.2 through 3.6 display that information by gender, race, sexuality, educational generational status, and academic class year. Exhibits 3.7 through 3.9 summarize the outcomes for 2021 students by various residential environments. In these tables, we specifically compare students in LLCs to those in TRPs (Exhibit 3.7), on-campus students to off-campus students (Exhibit 3.8), and students in specific LLC types (general, honors, theme, and academic; Exhibit 3.9). Throughout these comparisons, student outcomes mirrored each other, with a few exceptions.

As shown in Exhibit 3.2, multiple statistically significant differences presented among gender: academic confidence, major persistence intention, career attitudes, innovative intentions, campus engagement, campus sense of belonging, mental health struggles, and bystander knowledge. Men reported more positive responses toward academic confidence and campus sense of belonging than women and students of another gender. Women reported more positive responses to campus engagement and career attitudes than men and students of another gender. Additionally, women reported higher levels of major persistence intention and innovation intentions than students of another gender. Men reported higher levels of bystander knowledge than students of another gender as well as reported more positive mental health outcomes than women and students of another gender.

Outcomes by respondents of different races mirrored one another with two statistically significant differences. White respondents reported more positive responses toward academic confidence than their Black/African American peers (Exhibit 3.3). Additionally, Hispanic/Latina/o/x respondents reported higher levels of career attitudes than their Asian/ Pacific Islander peers.

Additionally, LGBQA+ respondents also differed from their heterosexual peers with seven statistically significant differences. As shown in Exhibit 3.4, LGBQA+ respondents reported lower levels of academic confidence, major persistence intention, and career attitudes than heterosexual students. Similar results were found for social outcomes, with LGBQA+ students

indicating lower levels of campus engagement, campus sense of belonging and bystander reporting intention and less mental health struggles than their heterosexual peers.

First-generation and continuing generation student outcomes mirrored one another with two exceptions. First-generation students reported high levels of career attitudes but lower responses towards academic confidence (Exhibit 3.5).

First-year students had lower scores on campus sense of belonging, campus engagement, integrative learning, major persistence intention and academic confidence than their upper-year peers (Exhibit 3.6).

In Exhibit 3.7, respondents living in traditional residential programs reported lower levels of academic confidence, innovative intentions, campus engagement, and campus sense of belonging when compared to their peers in LLCs. Additionally, outcomes by on-campus and off-campus respondents were similar with two differences. Off-campus respondents reported lower levels of campus sense of belonging and bystander knowledge (Exhibit 3.8)

Collegiate outcomes measured by respondents in different types of LLCs mirrored one another with two significant differences (Exhibit 3.9). Those respondents in honors programs communities reported more positive responses toward academic confidence than their peers living in general living learning programs. Additionally, those respondents living in academic living learning programs reported higher levels of career attitudes than their peers living in honors programs.

ANALYSIS OVER TIME

We used *t*-tests to also analyze the differences on the student outcomes for students in 2021 when compared to students in the previous administrations. Exhibit 3.10 provides a summary of the mean values (and SDs) for each type of student outcome we measured. Measures for students in 2021 mimicked those in 2018 and 2019 across all student outcomes, with a few exceptions

The largest differences from previous years to 2021 was evident for campus sense of belonging. Students in 2021 noted a lower sense of campus belonging than their peers in the 2018 & 2019 sample.

Trivial differences were also detected from previous administrations to 2021 for major persistence intention, integrative learning, innovative intentions, bystander knowledge and bystander reporting intention.

Exhibit 3.1

Collegiate Outcome Scores for 2021 Sample

	N	Mean	SD
Academic and Career Outcomes			
Academic confidence	754	7.58	2.01
Major persistence intention	754	8.44	2.26
Career attitudes	754	6.69	2.18
Intellectual Outcomes			
Critical engagement	754	5.60	1.33
Integrative learning	754	5.83	1.38
Innovation intentions	754	5.96	1.86
Social Outcomes			
Campus engagement	754	5.77	2.16
Campus sense of belonging	754	5.49	2.20
Mental health struggles	754	6.70	2.52
Mental health help-seeking	754	5.12	1.90
Bystander knowledge	754	6.33	2.65
Bystander reporting intention	754	7.29	2.19

Exhibit 3.2

Collegiate Outcomes for 2021 Sample: Differences by Gender

Academic confidence	N(%)	M	SD	Sig
1. Cisgender men	193(25.6%)	7.68	2.01	3
2. Cisgender women	501(66.4%)	7.63	1.95	3
3. Another gender identity	54(7.2%)	6.90	2.38	1,2
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	8.31	2.23	
2. Cisgender women	501(66.4%)	8.61	2.18	3
3. Another gender identity	54(7.2%)	7.50	2.93	2
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	6.56	2.29	3
2. Cisgender women	501(66.4%)	6.90	2.07	3
3. Another gender identity	54(7.2%)	5.22	2.24	1,2
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.73	1.51	
2. Cisgender women	501(66.4%)	5.53	1.28	
3. Another gender identity	54(7.2%)	5.77	1.12	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.68	1.45	
2. Cisgender women	501(66.4%)	5.87	1.36	
3. Another gender identity	54(7.2%)	5.91	1.27	
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.84	1.89	
2. Cisgender women	501(66.4%)	6.09	1.85	3
3. Another gender identity	54(7.2%)	5.24	1.66	2
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.34	2.29	2
2. Cisgender women	501(66.4%)	5.99	2.11	1,3
3. Another gender identity	54(7.2%)	5.27	1.89	2
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.72	2.41	3
2. Cisgender women	501(66.4%)	5.51	2.16	3
3. Another gender identity	54(7.2%)	4.59	1.72	1,2

Mental health struggles	N (%)	M	SD	Sig
1. Cisgender men	193(25.6%)	5.76	2.54	2,3
2. Cisgender women	501(66.4%)	6.98	2.41	1
3. Another gender identity	54(7.2%)	7.42	2.56	1
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	5.11	2.21	
2. Cisgender women	501(66.4%)	5.11	1.79	
3. Another gender identity	54(7.2%)	5.30	1.86	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	6.62	2.79	3
2. Cisgender women	501(66.4%)	6.31	2.58	
3. Another gender identity	54(7.2%)	5.65	2.69	1
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. Cisgender men	193(25.6%)	7.16	2.31	
2. Cisgender women	501(66.4%)	7.36	2.14	
3. Another gender identity	54(7.2%)	7.07	2.11	

**Note*: The significance (Sig) column denotes significant mean differences between groups within a single category. If the column is empty, there is no significant difference between the groups. If significant mean differences exist, the number(s) listed indicate where these differences are observed.

Exhibit 3.3

Collegiate Outcomes for 2021 Sample: Differences by Race

Academic confidence	N(%)	M	SD	Sig
1. Asian/Pacific Islander students	57(7.6%)	7.42	2.01	
2. Black/African American students	59(7.8%)	6.95	2.06	4
3. Hispanic/Latina/o/x students	43(5.7%)	7.21	1.77	
4. White students	519(68.8%)	7.75	1.98	2
5. Students with More than One Race	66(8.8%)	7.19	2.17	
6. Students of Another Race (including Native American)	10(1.3%)	7.35	1.93	
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	8.33	2.38	
2. Black/African American students	59(7.8%)	8.06	2.55	
3. Hispanic/Latina/o/x students	43(5.7%)	8.41	2.24	
4. White students	519(68.8%)	8.55	2.20	
5. Students with More than One Race	66(8.8%)	8.09	2.49	
6. Students of Another Race (including Native American)	10(1.3%)	8.53	1.83	
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	6.13	2.49	3
2. Black/African American students	59(7.8%)	6.62	2.46	
3. Hispanic/Latina/o/x students	43(5.7%)	7.42	1.95	1
4. White students	519(68.8%)	6.71	2.16	
5. Students with More than One Race	66(8.8%)	6.65	1.89	
6. Students of Another Race (including Native American)	10(1.3%)	6.24	1.75	
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	5.50	1.41	
2. Black/African American students	59(7.8%)	5.84	1.26	
3. Hispanic/Latina/o/x students	43(5.7%)	5.53	1.37	
4. White students	519(68.8%)	5.60	1.38	
5. Students with More than One Race	66(8.8%)	5.52	0.95	
6. Students of Another Race (including Native American)	10(1.3%)	5.45	1.12	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	5.99	1.42	
2. Black/African American students	59(7.8%)	6.09	1.48	
3. Hispanic/Latina/o/x students	43(5.7%)	5.82	1.49	
4. White students	519(68.8%)	5.78	1.37	
5. Students with More than One Race	66(8.8%)	5.88	1.35	
6. Students of Another Race (including Native American)	10(1.3%)	5.83	1.08	

Innovation intentions	N(%)	M	SD	Sig
1. Asian/Pacific Islander students	57(7.6%)	5.87	2.06	
2. Black/African American students	59(7.8%)	6.01	2.02	
3. Hispanic/Latina/o/x students	43(5.7%)	5.80	2.05	
4. White students	519(68.8%)	5.96	1.85	
5. Students with More than One Race	66(8.8%)	6.17	1.67	
6. Students of Another Race (including Native American)	10(1.3%)	5.48	0.90	
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	6.17	1.95	
2. Black/African American students	59(7.8%)	6.04	2.30	
3. Hispanic/Latina/o/x students	43(5.7%)	5.36	1.79	
4. White students	519(68.8%)	5.72	2.22	
5. Students with More than One Race	66(8.8%)	5.78	2.06	
6. Students of Another Race (including Native American)	10(1.3%)	6.21	1.30	
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	5.96	2.15	
2. Black/African American students	59(7.8%)	5.05	2.13	
3. Hispanic/Latina/o/x students	43(5.7%)	5.71	1.91	
4. White students	519(68.8%)	5.47	2.27	
5. Students with More than One Race	66(8.8%)	5.50	2.06	
6. Students of Another Race (including Native American)	10(1.3%)	5.29	1.26	
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	5.91	2.54	
2. Black/African American students	59(7.8%)	6.71	2.62	
3. Hispanic/Latina/o/x students	43(5.7%)	6.70	2.59	
4. White students	519(68.8%)	6.78	2.51	
5. Students with More than One Race	66(8.8%)	6.94	2.40	
6. Students of Another Race (including Native American)	10(1.3%)	5.15	1.77	
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	5.18	1.97	
2. Black/African American students	59(7.8%)	5.01	1.70	
3. Hispanic/Latina/o/x students	43(5.7%)	5.26	1.95	
4. White students	519(68.8%)	5.16	1.98	
5. Students with More than One Race	66(8.8%)	4.87	1.47	
6. Students of Another Race (including Native American)	10(1.3%)	4.97	0.79	

Bystander knowledge	N (%)	M	SD	Sig
1. Asian/Pacific Islander students	57(7.6%)	5.64	2.64	
2. Black/African American students	59(7.8%)	5.87	3.02	
3. Hispanic/Latina/o/x students	43(5.7%)	6.59	2.89	
4. White students	519(68.8%)	6.39	2.60	
5. Students with More than One Race	66(8.8%)	6.74	2.48	
6. Students of Another Race (including Native American)	10(1.3%)	6.08	2.45	
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. Asian/Pacific Islander students	57(7.6%)	7.07	2.24	
2. Black/African American students	59(7.8%)	7.05	2.23	
3. Hispanic/Latina/o/x students	43(5.7%)	7.15	2.68	
4. White students	519(68.8%)	7.28	2.14	
5. Students with More than One Race	66(8.8%)	7.77	2.08	
6. Students of Another Race (including Native American)	10(1.3%)	7.36	2.47	

Exhibit 3.4

Collegiate Outcomes for 2021 Sample: Differences by Sexuality

Academic confidence	N(%)	M	SD	Sig
1. LGBQA+ students	266(35.3%)	7.38	2.01	2
2. Heterosexual students	488(64.7%)	7.69	2.00	1
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	8.16	2.48	2
2. Heterosexual students	488(64.7%)	8.60	2.12	1
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	6.11	2.05	2
2. Heterosexual students	488(64.7%)	7.00	2.18	1
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.68	1.18	
2. Heterosexual students	488(64.7%)	5.55	1.41	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.95	1.42	
2. Heterosexual students	488(64.7%)	5.76	1.36	
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.79	1.83	
2. Heterosexual students	488(64.7%)	6.06	1.88	
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.40	2.07	2
2. Heterosexual students	488(64.7%)	5.97	2.19	1
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	5.06	1.92	2
2. Heterosexual students	488(64.7%)	5.73	2.31	1
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	7.42	2.40	2
2. Heterosexual students	488(64.7%)	6.31	2.49	1
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	4.96	1.91	
2. Heterosexual students	488(64.7%)	5.21	1.89	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	6.06	2.64	2
2. Heterosexual students	488(64.7%)	6.48	2.64	1
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. LGBQA+ students	266(35.3%)	7.14	2.18	
2. Heterosexual students	488(64.7%)	7.37	2.19	

Exhibit 3.5

Collegiate Outcomes for 2021 Sample: Differences by Education Generation Status

Academic confidence	N(%)	M	SD	Sig
1. First-generation students	282(37.4%)	7.26	2.21	2
2. Continuing-generation students	452(59.9%)	7.82	1.82	1
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	8.48	2.35	
2. Continuing-generation students	452(59.9%)	8.47	2.19	
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	6.91	2.21	2
2. Continuing-generation students	452(59.9%)	6.56	2.16	1
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.50	1.37	
2. Continuing-generation students	452(59.9%)	5.66	1.32	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.84	1.43	
2. Continuing-generation students	452(59.9%)	5.84	1.35	
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.91	1.93	
2. Continuing-generation students	452(59.9%)	6.01	1.80	
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.74	2.18	
2. Continuing-generation students	452(59.9%)	5.82	2.13	
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.54	2.32	
2. Continuing-generation students	452(59.9%)	5.51	2.14	
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	6.75	2.50	
2. Continuing-generation students	452(59.9%)	6.72	2.53	
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	5.26	2.02	
2. Continuing-generation students	452(59.9%)	5.08	1.82	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	6.41	2.64	
2. Continuing-generation students	452(59.9%)	6.35	2.64	
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. First-generation students	282(37.4%)	7.41	2.26	
2. Continuing-generation students	452(59.9%)	7.22	2.09	

Exhibit 3.6

Collegiate Outcomes for 2021 Sample: Differences by Academic Class Year

Academic confidence	N(%)	M	SD	Sig
1. First-year students	389(51.6%)	7.31	2.12	2
2. All other undergraduate students	365(48.4%)	7.86	1.84	1
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	8.20	2.43	2
2. All other undergraduate students	365(48.4%)	8.71	2.04	1
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	6.64	2.17	
2. All other undergraduate students	365(48.4%)	6.74	2.19	
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.54	1.32	
2. All other undergraduate students	365(48.4%)	5.66	1.35	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.67	1.28	2
2. All other undergraduate students	365(48.4%)	6.00	1.46	1
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.85	1.79	
2. All other undergraduate students	365(48.4%)	6.09	1.93	
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.51	2.11	2
2. All other undergraduate students	365(48.4%)	6.05	2.18	1
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.24	2.14	2
2. All other undergraduate students	365(48.4%)	5.76	2.24	1
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	6.66	2.47	
2. All other undergraduate students	365(48.4%)	6.75	2.56	
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	5.00	1.95	
2. All other undergraduate students	365(48.4%)	5.26	1.84	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	6.27	2.54	
2. All other undergraduate students	365(48.4%)	6.39	2.76	
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. First-year students	389(51.6%)	7.24	2.13	
2. All other undergraduate students	365(48.4%)	7.33	2.25	

Exhibit 3.7

Collegiate Outcomes for 2021 Sample: Differences by Residential Environment (LLCs v. TRPs)

Academic confidence	N(%)	M	SD	Sig
1. Living learning communities	173(22.9%)	8.08	1.66	2
2. Traditional residential programs	459(60.9%)	7.48	2.03	1
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	8.58	2.15	
2. Traditional residential programs	459(60.9%)	8.44	2.26	
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.95	1.98	
2. Traditional residential programs	459(60.9%)	6.59	2.19	
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.80	1.31	
2. Traditional residential programs	459(60.9%)	5.57	1.36	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.99	1.51	
2. Traditional residential programs	459(60.9%)	5.77	1.36	
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.42	1.86	2
2. Traditional residential programs	459(60.9%)	5.85	1.77	1
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.09	2.15	2
2. Traditional residential programs	459(60.9%)	5.71	2.16	1
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.14	2.14	2
2. Traditional residential programs	459(60.9%)	5.44	2.21	1
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.63	2.39	
2. Traditional residential programs	459(60.9%)	6.72	2.55	
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	5.24	1.80	
2. Traditional residential programs	459(60.9%)	5.16	1.98	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	6.32	2.19	
2. Traditional residential programs	459(60.9%)	6.49	2.72	
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. Living learning communities	173(22.9%)	7.21	2.19	
2. Traditional residential programs	459(60.9%)	7.35	2.17	

Exhibit 3.8

Collegiate Outcomes for 2021 Sample: Differences by Residential Environment (On v. Off Campus)

Academic confidence	N(%)	M	SD	Sig
1. On-campus students	632(83.8%)	7.64	1.96	
2. Off-campus students	122(16.2%)	7.26	2.24	
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	8.48	2.23	
2. Off-campus students	122(16.2%)	8.27	2.44	
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	6.69	2.14	
2. Off-campus students	122(16.2%)	6.67	2.38	
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.63	1.35	
2. Off-campus students	122(16.2%)	5.41	1.22	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.83	1.40	
2. Off-campus students	122(16.2%)	5.81	1.27	
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	6.00	1.81	
2. Off-campus students	122(16.2%)	5.75	2.11	
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.82	2.16	
2. Off-campus students	122(16.2%)	5.55	2.16	
Campus sense of belonging	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.63	2.21	2
2. Off-campus students	122(16.2%)	4.78	2.05	1
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	6.70	2.50	
2. Off-campus students	122(16.2%)	6.72	2.58	
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	5.18	1.93	
2. Off-campus students	122(16.2%)	4.84	1.72	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	6.44	2.59	2
2. Off-campus students	122(16.2%)	5.74	2.89	1
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. On-campus students	632(83.8%)	7.31	2.18	
2. Off-campus students	122(16.2%)	7.14	2.24	

Exhibit 3.9

Collegiate Outcomes for 2021 Sample: Differences by LLP Type

Academic confidence	N(%)	M	SD	Sig
1. General LLP	54(7.2%)	7.80	1.90	2
2. Honors Programs	48(6.4%)	8.68	1.11	1
3. Theme LLPs	30(4.0%)	7.98	1.68	
4. Academic LLPs	41(5.4%)	7.82	1.71	
Major persistence intention	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	8.62	2.13	
2. Honors Programs	48(6.4%)	9.14	1.52	
3. Theme LLPs	30(4.0%)	8.37	2.36	
4. Academic LLPs	41(5.4%)	8.00	2.51	
Career attitudes	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	7.05	2.00	
2. Honors Programs	48(6.4%)	6.46	1.59	4
3. Theme LLPs	30(4.0%)	6.63	2.12	
4. Academic LLPs	41(5.4%)	7.60	2.14	2
Critical engagement	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.71	1.36	
2. Honors Programs	48(6.4%)	5.60	1.20	
3. Theme LLPs	30(4.0%)	5.81	1.15	
4. Academic LLPs	41(5.4%)	6.13	1.44	
Integrative learning	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.84	1.34	
2. Honors Programs	48(6.4%)	6.08	1.73	
3. Theme LLPs	30(4.0%)	5.66	1.19	
4. Academic LLPs	41(5.4%)	6.35	1.61	
Innovation intentions	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.08	1.80	
2. Honors Programs	48(6.4%)	6.41	1.88	
3. Theme LLPs	30(4.0%)	6.21	1.95	
4. Academic LLPs	41(5.4%)	7.04	1.77	
Campus engagement	**N(%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.00	2.18	
2. Honors Programs	48(6.4%)	6.29	1.87	
3. Theme LLPs	30(4.0%)	6.14	2.03	
4. Academic LLPs	41(5.4%)	5.95	2.53	

Campus sense of belonging	N (%)	M	SD	Sig
1. General LLP	54(7.2%)	6.07	2.21	
2. Honors Programs	48(6.4%)	5.86	1.70	
3. Theme LLPs	30(4.0%)	6.04	2.09	
4. Academic LLPs	41(5.4%)	6.65	2.49	
Mental health struggles	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.78	2.00	
2. Honors Programs	48(6.4%)	6.45	2.65	
3. Theme LLPs	30(4.0%)	6.83	2.51	
4. Academic LLPs	41(5.4%)	6.51	2.52	
Mental health help-seeking	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	5.18	1.76	
2. Honors Programs	48(6.4%)	5.20	1.76	
3. Theme LLPs	30(4.0%)	5.20	1.30	
4. Academic LLPs	41(5.4%)	5.38	2.23	
Bystander knowledge	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	6.49	2.35	
2. Honors Programs	48(6.4%)	6.10	2.18	
3. Theme LLPs	30(4.0%)	6.05	2.28	
4. Academic LLPs	41(5.4%)	6.54	1.93	
Bystander reporting intention	**N (%)**	**M**	**SD**	**Sig**
1. General LLP	54(7.2%)	7.31	2.39	
2. Honors Programs	48(6.4%)	6.74	2.21	
3. Theme LLPs	30(4.0%)	7.46	1.98	
4. Academic LLPs	41(5.4%)	7.46	2.01	

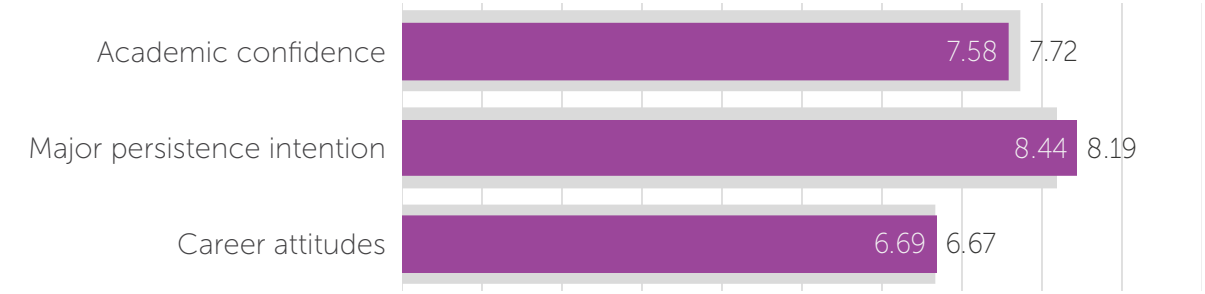
Exhibit 3.10

Collegiate Outcome Scores for 2021 Sample Benchmarking

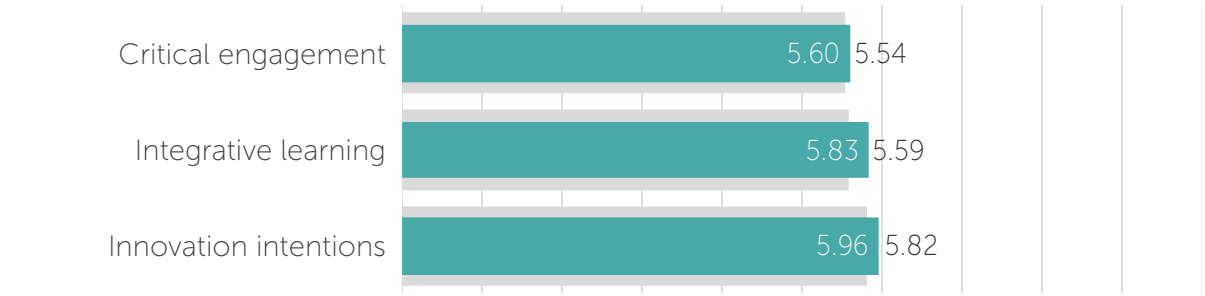
	2021 Sample		2018 & 2019 Sample		
	Mean	SD	Mean	SD	ES
Academic and Career Outcomes					
Academic confidence	7.58	2.01	7.72	1.93	
Major persistence intention	8.44	2.26	8.19	2.26	–
Career attitudes	6.69	2.18	6.67	1.88	
Intellectual Outcomes					
Critical engagement	5.60	1.33	5.54	1.29	
Integrative learning	5.83	1.38	5.59	1.23	–
Innovation intentions	5.96	1.86	5.82	1.80	–
Social Outcomes					
Campus engagement	5.77	2.16	5.87	2.08	
Campus sense of belonging	5.49	2.20	5.98	2.12	○
Mental health struggles	6.70	2.52	.	.	.
Mental health help-seeking	5.12	1.90	.	.	.
Bystander knowledge	6.33	2.65	6.53	2.48	–
Bystander reporting intention	7.29	2.19	6.88	2.14	–

Effect size (ES) indicators included if $p < 0.05$.
– represents a trivial effect (Cohen's d <.20); ○ represents a small effect (Cohen's d between .20 and .49), ◐ represents a medium effect (Cohen's d between .50 and .79); ● represents a large effect (Cohen's d > .80)

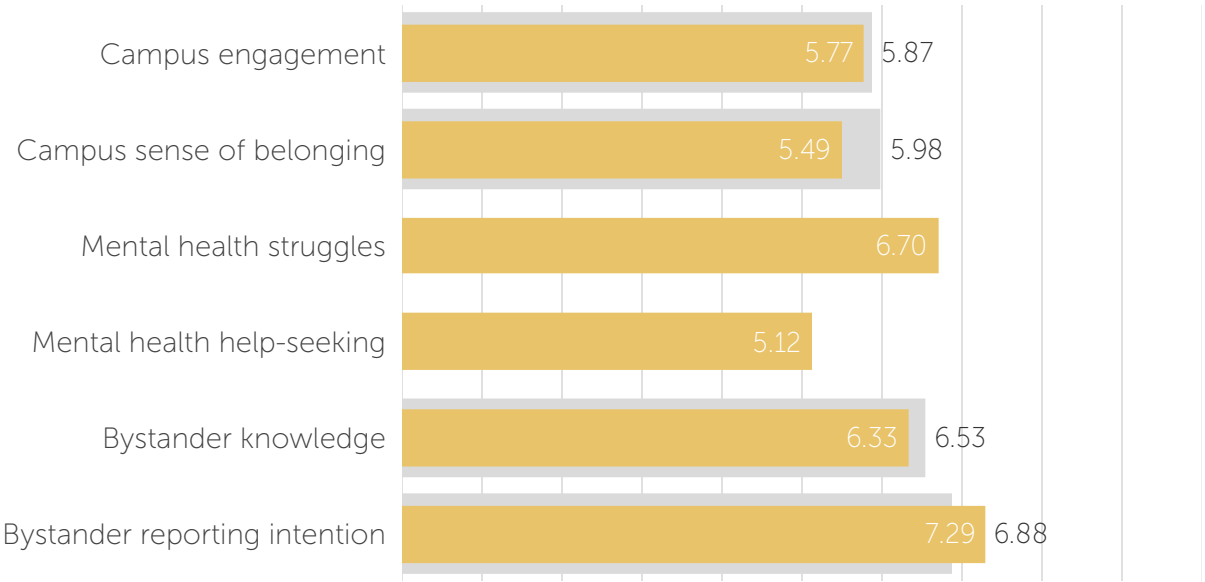
Academic and Career Outcomes



Intellectual Outcomes



Social Outcomes



SECTION FOUR: IMPACT ANALYSIS

IMPACT ANALYSIS

Overview of Methods

The purpose of this section is to provide an analysis of which residential experiences have the largest role in the student academic and social outcomes measured by ACREO. Our hope is that this chapter will provide practitioners with additional and valuable information useful for making programming and policy decisions.

With the theoretical framework in mind, we conducted a series of multiple linear regression analyses to determine which student characteristics and residential experiences were significantly correlated with the outcomes. Each finding represents the association between the stated experience (e.g., major-related support) and the outcome after accounting for background characteristics and all of the other experiences measured by ACREO.

Instead of focusing solely on providing a table of regression coefficients (which is found in the appendices), we include two matrices that communicates whether an experience is significantly correlated with the outcome, the direction (positive or negative), and the correlation strength. We use an open circle to indicate a trivial - yet still statistically significant - correlation and a closed circle to indicate a non-trivial correlation. The strength of the correlations is based on the *p*-values found in the analysis. However, a trivial correlation is still significant, just not at the same level as a non-trivial correlation. Also, a green circle communicates a positive correlation (i.e., as the score in the experience increases, the score in the outcome also increases) and an orange circle communicates a negative correlation (i.e., as the score in the experience increases, the outcome decreases). We also note that all continuous variables were standardized before running the analysis; as such, the advanced reader can interpret those coefficients as effect sizes.

Interpreting Results

We suggest you read this table in a variety of ways. You can, for instance, look down the column of any outcome your department would like to improve, and know to focus resources on those experiences which have significant influence. For high performance areas, you may want to reflect on what practices or environments led to such positive student input and consider ways

to maximize or expand those practices. This matrix is also useful if you are interested in knowing what outcomes a signature program is most likely to improve (or not).

REGRESSION RESULTS

Key Findings: Experiences and Outcomes

As shown in Exhibit 4.1, several associations between residential experiences and academic, career, and intellectual outcomes were found after running the analyses. In particular, perception of major-related support system was found to have a non-trivial positive effect on integrative learning and intention to innovate for respondents. Discussions with diverse peers was also found to have a non-trivial positive effect on integrative learning outcomes for respondents. Lastly, having discussed sociocultural issues with peers had a trivial negative effect on major persistence intention.

Several statistically significant correlations were found between residential experiences and social outcomes (Exhibit 4.2). A supportive residential environment was found to have a trivial negative effect on mental health struggles for respondents. Additionally, both perception of major-related support system and a supportive residential environment had a non-trivial positive effect on campus sense of belonging. Respondents also reported that general co-curricular engagement had a non-trivial positive effect on campus engagement outcomes.

Exhibit 4.1

Matrix of Residential Experiences and Academic, Career, and Intellectual Outcomes

	Academic Confidence	Major Persistence Intention	Career Attitudes	Critical Engagement	Integrative Learning	Intention to Innovate
Academic Experiences						
Perception of major-related support system					●	●
Discussed learning experiences with peers						
Discussions with diverse peers					●	
Discussed sociocultural issues with peers		○				
Residential environment's influence on major						
Social Experiences						
General co-curricular engagement						
Perception of peer network						
Supportive residential environment						

● Non-trivial, positive effect, ○ Trivial, positive effect, ● Non-trivial, negative effect, ○ Trivial, negative effect,

Exhibit 4.2

Matrix of Residential Experiences and Social Outcomes

	Campus Engagement	Campus Sense of Belonging	Mental Health Struggles	Mental Health help-Seeking	Bystander Knowledge	Bystander Reporting Intention
Academic Experiences						
Perception of major-related support system		●		●		
Discussed learning experiences with peers						
Discussions with diverse peers						
Discussed sociocultural issues with peers						
Residential environment's influence on major						
Social Experiences						
General co-curricular engagement	●					
Perception of peer network						
Supportive residential environment		●	○			

● Non-trivial, positive effect, ○ Trivial, positive effect, ● Non-trivial, negative effect, ○ Trivial, negative effect,

SECTION FIVE:
DISCUSSION & IMPLICATIONS

Care must be taken in analyzing a sample which is not designed with the specific goal of being nationally representative. Nonetheless, we can make some useful observations from the 2021 data – as well as noting what we can *not* observe.

RESIDENTIAL ENVIRONMENTS

Residential experiences appear largely equitable when considering student gender and race. Women-identifying students rated their Major-related support systems more highly than either men-identifying or non-binary students. Given that there is a tradition of LLPs organized to support cisgender women in historically challenging majors (e.g., Women in STEM LLPs) this may not be surprising. But otherwise, the 2021 ACREO study found no statistically significant differences between genders in terms of student residential experiences. The suggestion here is plain and encouraging: residential experiences may be equitable across genders.

This suggestion is even stronger when we turn to race: none of ACREO's 12 measures of experience were statistically significantly different for any of six different racial identities compared to any of the other racial identities. This equity extended to first-generation students as well: those students rated all twelve residential experience measures indistinguishably from their continuing-generation peers.

ACREO's 2021 study did detect statistically significant differences between heterosexual and LGBQA+ student experiences (which, in and of itself, lends credence to the notion that the non-findings above are noteworthy). LGBQA+ students appeared disadvantaged in our 2021 sample across three conceptually interconnected measures: Major related support system; Residential environment's influence on major; and Supportive residential environment. Residential education practitioners may want to examine how they can work with faculty and their academic affairs colleagues within their residential environments to create supportive experiences for LBGQA+ students in general, but specifically around their options of major.

Those same three measures also revealed differences in the experiences of first-year vs. all other undergraduates, with first-years feeling less support. (Additionally, first-year students reported lower rates of both Residential and General co-curricular engagement – perhaps unsurprising, as they navigate a new campus and search out their co-curricular niches?) In addition to examining major support for first-year students (many of whom may be struggling with which major to choose), residential education practitioners may want to examine the relationship between these measures.

That said, the 2021 ACREO sample suggests that LLPs continue to do what they were designed to do. Students in living learning programs reported higher levels on a host of residential experience measures compared to their traditional residential program peers. Notably, students in LLPs reported statistically significantly higher levels on all three discussion-focused measures: Discussed learning experiences with peers; Discussions with diverse peers; and Discuss socio-cultural issues with peers. Combined with the finding that LLP students also rate their Perception of their peer network statistically significantly higher than their traditional residential program schoolmates, LLPs appear to foster the kinds of curricular and civic discussions across difference which educators hope they will. Importantly, LLPs also appear to offer major-related support for students, as they responded statistically significantly higher to the previously mentioned trio of measures (Major related support systems, Residential environment's influence on major, and Supportive residential environment).

Students in LLPs also experienced more Co-curricular engagement – both within the residential setting and on campus more generally – and had more interactions with faculty outside the classroom; all these findings were also statistically significant. In short, LLP students may have more engaging collegiate experiences than their traditional residential setting schoolmates. And, of interest to practitioners weighing different models of residential education: there were almost no differences in these reported experiences between the different types of LLPs ACREO identities (General LLPs, Academic LLPs, Theme LLPs, or Honors).

One interesting non-finding pertains to campus climate: despite such striking differences across nearly every other experiential measure, LLP students did not report statistically significantly different experiences of campus climate than did their non-LLP classmates. This non-finding held true across all six different identities ACREO investigates. Given that the items ask students about the *campus* climate and not the *residence hall* climate, the findings may suggest that residential systems ultimately have little sway over such broader school experiences with identity. Put another way: while LLPs continue to provide a host of experiential benefits for their students, changing the experiences of belonging on the larger campus may not be one of them.

(Many of these findings and non-findings were mirrored when the study compared on-campus to off-campus students. Again, residential education appears to be broadly achieving its goals. Students who lived on campus reported statistically significant different experiences on two peer-focused measures and the two majors-focused measures. Interestingly, one student population did experience on-campus living differently than off-campus living in terms of campus climate toward their identity: campus climate toward mental health. It may be that this experience is tied to campus services, which are more visible to on-campus students? It may also be that program and communication-related efforts to destigmatize mental health support are also more palpable to on-campus students than to their off-campus schoolmates.)

While ACREO is designed as a yearly study, the annual report is an opportunity to examine trends compared to the preceding year. Given the disruption of the global pandemic, the 2021 study presents a particularly compelling window to examine residential education more broadly. The results, while not surprising, are dispiriting. Students in the ACREO 2021 sample appear to have experienced a diminished campus when compared to their predecessors (defined as the 2018 and 2019 ACREO samples; ACREO paused during the pandemic Spring of 2020). The effect size for both Discussions with diverse peers and General co-curricular engagement were both small (a Cohen's d between .20 and .49). 2021 students rated their Peer network less highly and had fewer General non-academic faculty interactions (both effect sizes trivial). It's not hard to infer that during the pandemic, students who were fortunate enough to be on campus for in person education were simply engaging less with anything other than their classes; indeed, many campus activities (including visiting other students' rooms!) may have been canceled or curtailed. Strikingly, this less-engaging experience reverberated beyond just those measures:

Campus Climate in the 2021 ACREO sample was lower compared to the 2018/2019 benchmark for sexuality, worldview, nationality, and gender (all effect sizes trivial).

STUDENT OUTCOMES

Turning to outcomes, it appears that non-binary students are disadvantaged compared to their cis classmates in the 2021 ACREO sample in statistically significant ways. Non-binary students had lower Academic confidence than their cis classmates, lower Career attitudes, and lower Campus sense of belonging. Compared to cisgender women, non-binary students also had lower Major persistence intentions, lower Innovation intentions, and lower Campus engagement. Non-binary students had higher Mental health struggles than cisgender men, and even had lower Bystander knowledge than cisgender men. Non-binary students may need increased support from our Residential education systems.

Similarly, LGBQA+ students appear disadvantaged compared to their heterosexual classmates on a wide range of outcomes. This trend holds across both academic outcomes (Academic confidence, Major persistence intention, and Career attitudes) and social outcomes (Campus engagement, Campus sense of belonging). LGBQA+ students reported higher Mental health struggles and lower Bystander knowledge. All these differences were statistically significant. A compelling non-finding: there was no difference between LGBQA+ and heterosexual students on any of ACREO's three *intellectual outcomes,* which could be read to suggest that it is indeed the campus (representing both an academic and social institution) which is disadvantaging our LGBQA+ students.

By way of contrast, there were almost no differences in the outcomes (academic, social, or intellectual) based on students' race. (Two exceptions: African American students reported lower Academic confidence than White students; and Hispanic/Latina/o/x students reported higher Career attitudes than Asian/Pacific Islander students.) This non-finding combined with the non-findings around race and residential experiences suggest that efforts at creating equitable college structures around race may be making progress.

Outcomes for First-generation students were also largely indistinguishable from their Continuing-generation classmates. Academic confidence was lower for first-generation students, an unsurprising outcome given imposter syndrome and the challenges navigating the college ecosystem first-gen students face; nonetheless, it suggests that continued support around this issue may be warranted. Conversely, First-generation students reported higher Career attitudes than their classmates. Given the national narratives around the social mobility power of higher education, it may be that First-generation students recognize this value of their college experience more readily than their classmates.

The traditional focus of Residential education on first-year students appears to be supported by the 2021 ACREO sample. First-year students report lower Academic confidence, Major persistence intentions, Integrative learning,

Campus engagement and Campus belonging compared to all other undergraduates. Given that first-year students may still be choosing their major, Residential education may be able to help support persistence intentions through programming around major choice support. But more broadly, these findings suggest that first-years are – in academic, intellectual and social terms – still finding their footing; Residential education may want to continue efforts to help support those processes.

The outcomes associated with living learning programs are not as overwhelmingly positive as the experiences, but LLPs do appear to continue to foster many of the outcomes they were designed to. In the 2021 ACREO sample, LLP students reported higher Academic confidence, Innovation intentions, Campus engagement and – separately – sense of belonging than their traditional residential education peers. Interestingly, there did not appear to be many differences between kinds of LLPs and their associated outcomes. (Students in Honors programs reported higher Academic confidence than General LLP students, which of course may be an example of selection (or, indeed, selectivity) bias more than a causal relationship.)

Although results from the 2021 ACREO study may provide evidence for the efficacy of LLPs, they don't as easily provide outcomes-based evidence for living on campus in general. Indeed, the only outcome ACREO measures which was statistically significantly higher for on-campus students than their off-campus peers was, unsurprisingly, Campus sense of belonging. Given that the *experiences* did in fact appear to differ for these two populations, this outcomes non-divergence suggests that further study may be warranted. Perhaps there are other off-campus experiences which similarly influence student outcomes but which are not currently appreciated enough in the study or the field more broadly.

Finally, looking at the 2021 outcomes in relationship to the 2019/2018 sample reveals a compellingly mixed landscape. Mirroring the lower engagement in experiences, students in the 2021 ACREO sample reported distressingly lower Campus sense of belonging (with a small effect size) as well as lower levels of Bystander knowledge (trivial effect size). And yet, these same students reported higher levels of Major persistence intention, innovation intentions, integrative learning, and bystander reporting intentions (all trivial effect sizes). One reading of these findings could be that students in 2021, faced with a partially shut-down campus life, were more apt to quote-unquote focus on their studies; the experiential and social outcomes' loss may be the academic outcomes' gain, as it were. Another reading might focus, instead, on the pattern of difference among three *intentions*-based outcomes: perhaps students in 2021 were, in their restricted states, chomping at the bit; while administrators may have seen a campus shut down, students may have experienced it and themselves as pent-up potential, determined to emerge. This clear change of engagement and student performance in residential environments is reason for both concern and response from Residential Education professionals. The end of the COVID pandemic remains unclear, so efforts to engage students in different but safe ways remains a need for students.

Overall, despite the limited nature of the sample, the trends continue of residential education and living learning programs in particular delivering on many of the social, academic, and intellectual experiences and outcomes they were designed for. Perhaps these limited findings can offer a small amount of hope to the field as Higher Education in the United States continues to emerge from the crises of 2020 and 2021.

APPENDIX A:
READING THE TABLES & CHARTS

READING THE TABLES AND CHARTS

Throughout this report we use tables and charts to display your results and help you make the most meaning of your data. This appendix is dedicated to helping you understand how we communicate information throughout the chapters and in the appendices. Please see the following figures for assistance in reading the tables.

We use several tables with the factors to portray information in the chapters. Bar charts are used to demonstrate any differences between the 2021 sample and previous administrations. Figures A.1 and A.2 explain the chapter tables and Figure A.3 explains the chapter chart. Independent samples *t*-tests were performed to identify statistically significant mean differences on the residential experiences and collegiate outcomes by student demographic variables as well as residential environment. These tests were also conducted to look for any differences between students for 2021 Sample and the 2021 sample. Tests for effect sizes were conducted for any significant differences between the 2021 sample and the previous administrations. Large effect sizes are indicated with "●", medium effect sizes are indicated with "◐", small effect sizes are indicted with "○", and trivial effect sizes are indicated with "–".

You will find the student demographic tables in the following appendix. A supplemental report with results on all items answered is included as a separate document. These tables provide you with all the item-level information collected on the ACREO survey.

The student demographics table in Appendix B provides the number and percentage of students who responded to the questions about their background. Knowing these "inputs" and to what degree the respondent group reflects the represented population will help you discern the ways in which it is appropriate to generalize information to the larger population. Use Figure A.4 for more information on reading the demographics table.

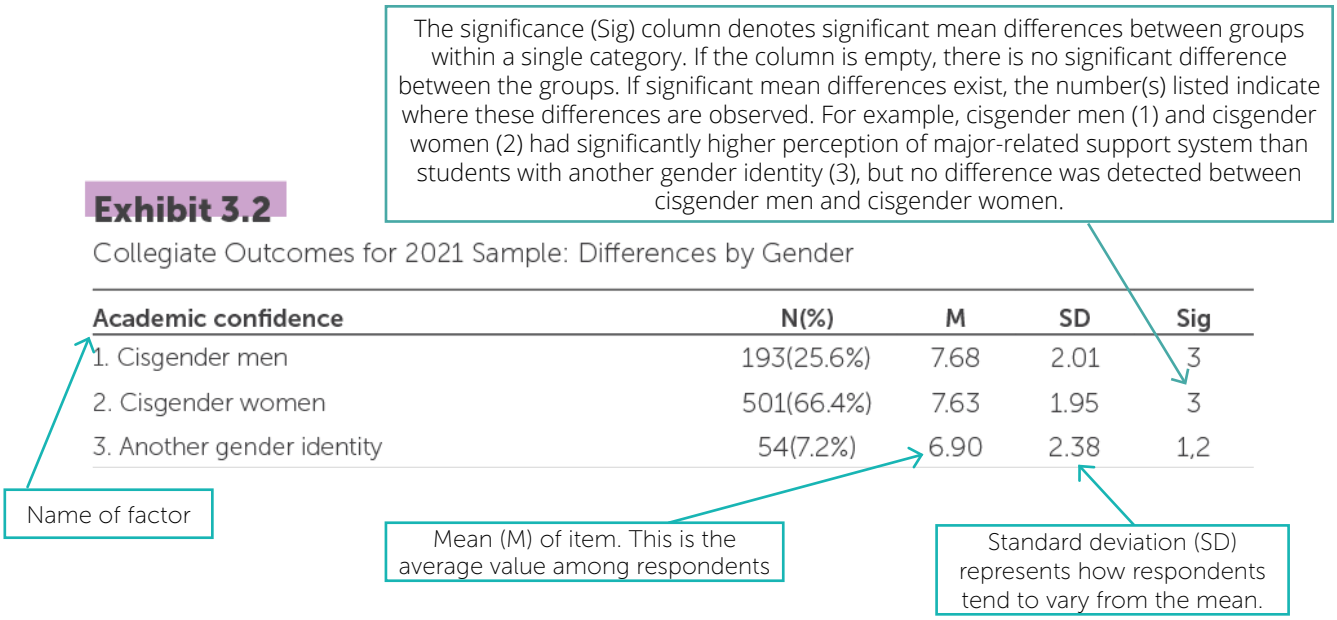


Figure A.1: Reading the Chapter Within 2021 Tables

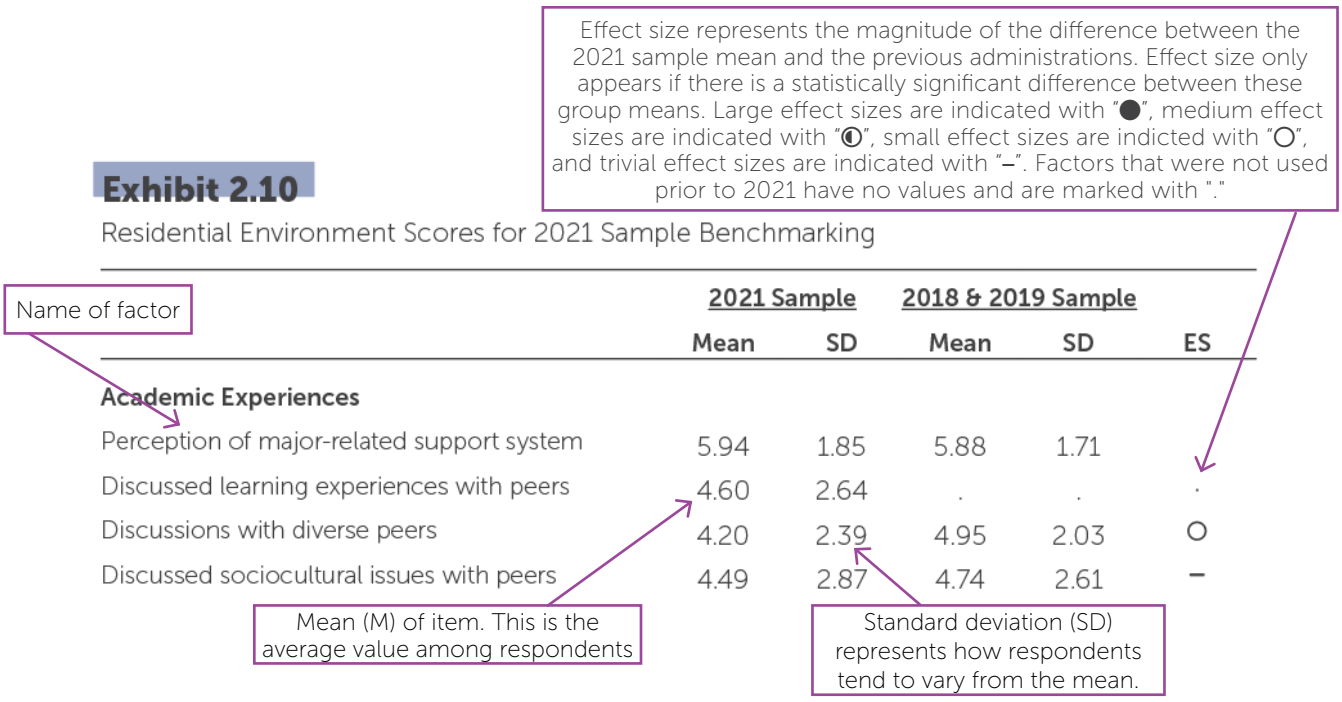
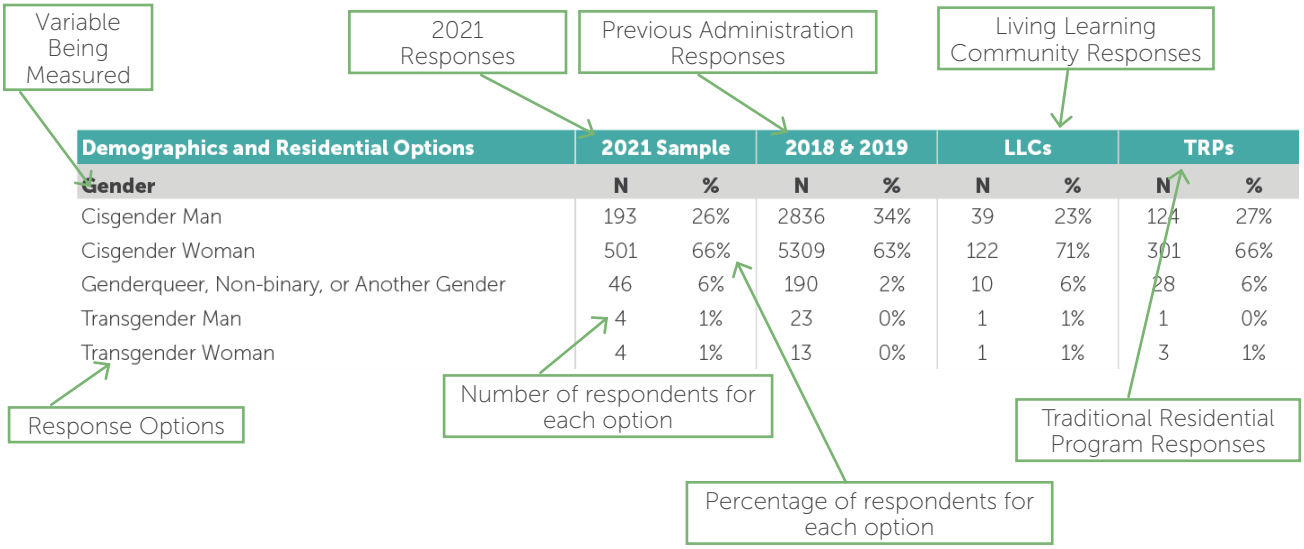


Figure A.2: Reading the Chapter Between Administrations Tables



Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Gender	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Cisgender Man	193	26%	2836	34%	39	23%	124	27%
Cisgender Woman	501	66%	5309	63%	122	71%	301	66%
Genderqueer, Non-binary, or Another Gender	46	6%	190	2%	10	6%	28	6%
Transgender Man	4	1%	23	0%	1	1%	1	0%
Transgender Woman	4	1%	13	0%	1	1%	3	1%

Figure A.3: Reading the Appendix B Tables

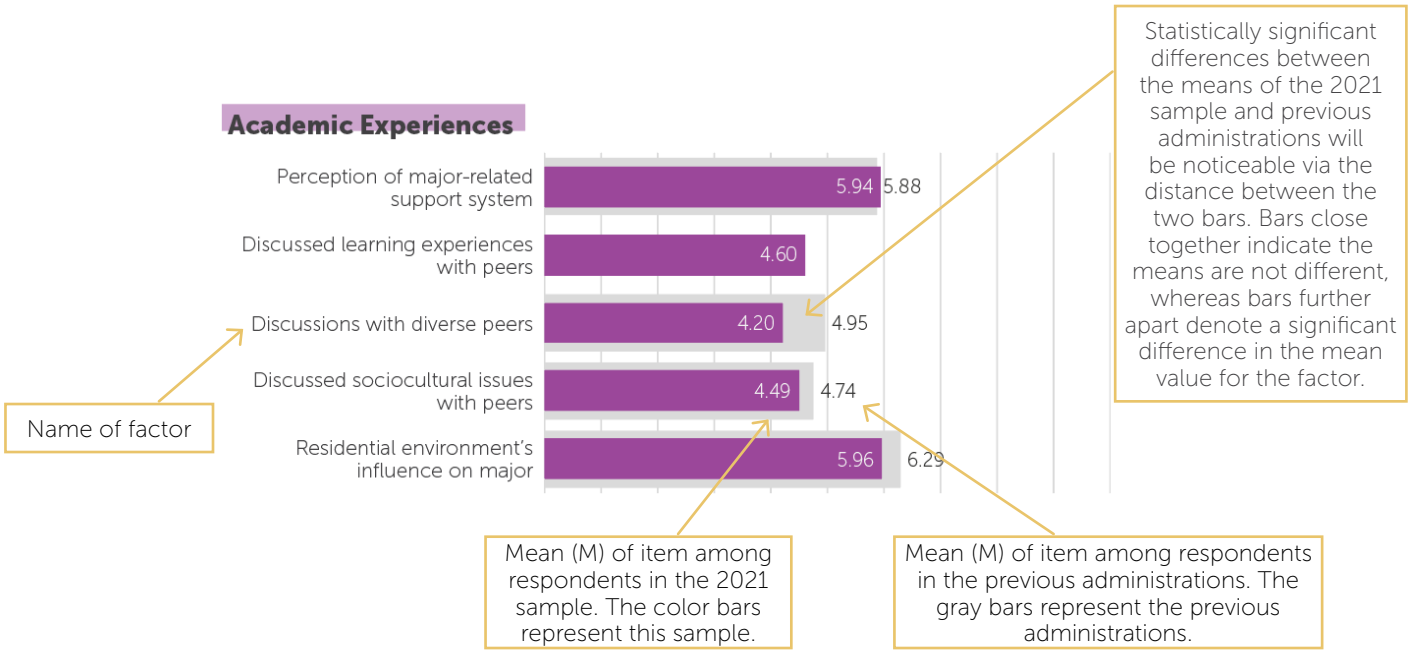


Figure A.4: Reading the Chapter Charts

APPENDIX B:
DEMOGRAPHIC TABLES

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Gender	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Cisgender Man	193	26%	2836	34%	39	23%	124	27%
Cisgender Woman	501	66%	5309	63%	122	71%	301	66%
Genderqueer, Non-binary, or Another Gender	46	6%	190	2%	10	6%	28	6%
Transgender Man	4	1%	23	0%	1	1%	1	0%
Transgender Woman	4	1%	13	0%	1	1%	3	1%
Race/Ethnicity	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
American Indian or Alaska Native	3	0%	23	0%	1	1%	1	0%
Another race or ethnicity	7	1%	251	3%	2	1%	3	1%
Asian or Asian American	55	7%	2031	24%	17	10%	21	5%
Black or African American	59	8%	348	4%	10	6%	40	9%
Hispanic or Latina/o/x	43	6%	803	10%	10	6%	26	6%
More than one race or ethnicity	66	9%	839	10%	13	8%	43	9%
Native Hawaiian or Pacific Islander	2	0%	9	0%	1	1%	1	0%
White	519	69%	4067	49%	119	69%	324	71%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Sexuality	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Asexual	38	5%	0	0%	7	4%	22	5%
Bisexual	90	12%	748	9%	22	13%	54	12%
Gay	10	1%	205	2%	3	2%	6	1%
Heterosexual	488	65%	6848	82%	107	62%	305	66%
Lesbian	18	2%	85	1%	5	3%	11	2%
Pansexual	12	2%	0	0%	3	2%	7	2%
Queer or another sexuality	98	13%	485	6%	26	15%	54	12%
Worldview/Religion	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Agnosticism	96	13%	1579	19%	32	18%	51	11%
Another worldview/religion	100	13%	713	9%	17	10%	62	14%
Atheism	72	10%	1227	15%	13	8%	49	11%
Buddhism	8	1%	278	3%	5	3%	2	0%
Christianity	399	53%	3790	45%	86	50%	259	56%
Hinduism	11	1%	128	2%	4	2%	3	1%
Islam	13	2%	110	1%	3	2%	4	1%
Judaism	13	2%	162	2%	3	2%	10	2%
More than one worldview/religion	42	6%	384	5%	10	6%	19	4%
Political Views	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Very liberal	130	17%	0	0%	44	25%	73	16%
Liberal	234	31%	0	0%	60	35%	144	31%
Moderate	230	31%	0	0%	49	28%	128	28%
Conservative	101	13%	0	0%	14	8%	76	17%
Very conservative	37	5%	0	0%	5	3%	26	6%
Nationality	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
United States resident	722	96%	7853	94%	166	96%	445	97%
International student	22	3%	477	6%	6	3%	10	2%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Veteran Status	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Never served in the military	734	97%	0	0%	169	98%	452	98%
Only on active duty for training in the Reserves or National Guard	5	1%	0	0%	1	1%	2	0%
Now on active duty	3	0%	0	0%	1	1%	1	0%
On active duty in the past, but not now	1	0%	0	0%	0	0%	0	0%
Dis/ability	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Attention deficit hyperactivity disorder	112	15%	0	0%	21	12%	77	17%
Autism spectrum disorder	18	2%	0	0%	1	1%	15	3%
Chronic illness	41	5%	0	0%	9	5%	22	5%
Hearing disability	9	1%	0	0%	2	1%	7	2%
Learning disability	25	3%	0	0%	5	3%	15	3%
Mental health condition	295	39%	0	0%	68	39%	181	39%
Mobility/Orthopedic condition	9	1%	0	0%	1	1%	4	1%
Psychiatric/Psychological condition	21	3%	0	0%	4	2%	11	2%
Traumatic brain injury/Concussion	3	0%	0	0%	0	0%	3	1%
Vision Disability	30	4%	0	0%	9	5%	17	4%
Another health disclosure	37	5%	0	0%	7	4%	24	5%
More than one health disclosure	143	19%	0	0%	24	14%	90	20%
No health disclosures	359	48%	0	0%	83	48%	218	47%
Highest education level for first guardian	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
High school or less	178	24%	1737	21%	33	19%	108	24%
Some college, but no degree	116	15%	1234	15%	22	13%	77	17%
Associates degree	50	7%	458	5%	10	6%	33	7%
Bachelors degree	219	29%	2396	29%	54	31%	132	29%
Masters degree	119	16%	1454	17%	37	21%	69	15%
Doctorate or professional degree	49	6%	853	10%	13	8%	29	6%
Not applicable	6	1%	202	2%	1	1%	2	0%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Highest education level for second guardian	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
High school or less	170	23%	1509	18%	29	17%	103	22%
Some college, but no degree	105	14%	1092	13%	19	11%	69	15%
Associates degree	66	9%	680	8%	18	10%	35	8%
Bachelors degree	194	26%	2825	34%	49	28%	117	25%
Masters degree	98	13%	1618	19%	26	15%	64	14%
Doctorate or professional degree	27	4%	542	6%	7	4%	17	4%
Not applicable	15	2%	90	1%	1	1%	10	2%
Social class	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Poor	48	6%	0	0%	9	5%	29	6%
Working class	106	14%	0	0%	25	14%	70	15%
Lower-middle class	127	17%	0	0%	18	10%	78	17%
Middle class	307	41%	0	0%	71	41%	188	41%
Upper-middle class	140	19%	0	0%	47	27%	77	17%
Upper class	9	1%	0	0%	1	1%	8	2%
Foster youth alumnus	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Not a foster youth alumnus	729	97%	0	0%	170	98%	447	97%
Foster youth alumnus	5	1%	0	0%	0	0%	2	0%
Current academic class year	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
First year	389	52%	4072	49%	105	61%	219	48%
Second year	181	24%	2072	25%	30	17%	130	28%
Third year	99	13%	1711	20%	22	13%	57	12%
Fourth year	54	7%	382	5%	10	6%	37	8%
Fifth year plus (undergraduate)	5	1%	49	1%	2	1%	2	0%
Graduate student	10	1%	71	1%	2	1%	7	2%
Transfer students	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Not a transfer student	646	86%	7263	87%	156	90%	407	89%
Transfer student	90	12%	1098	13%	14	8%	43	9%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Financial aid received	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Did not receive financial aid	69	9%	2092	25%	16	9%	40	9%
Federal grants	275	36%	3030	36%	46	27%	180	39%
Federal loans	239	32%	3004	36%	44	25%	162	35%
Work study	87	12%	1385	17%	19	11%	59	13%
Institutional merit scholarships or grants	449	60%	3062	37%	120	69%	273	59%
Institutional athletic scholarships	15	2%	119	1%	5	3%	7	2%
Outside scholarships	244	32%	2215	26%	69	40%	155	34%
Private loans	69	9%	631	8%	15	9%	46	10%
Unsure	51	7%	490	6%	8	5%	32	7%
Academic major	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Undecided/Undeclared	9	1%	281	3%	2	1%	6	1%
Agriculture	17	2%	72	1%	0	0%	16	3%
Architecture and Building Trades	4	1%	86	1%	2	1%	2	0%
Area, Ethnic, Cultural, and Gender Studies	3	0%	61	1%	0	0%	3	1%
Biological Sciences	80	11%	1245	15%	25	14%	41	9%
Business Administration	66	9%	653	8%	7	4%	44	10%
Communications and Journalism	23	3%	235	3%	3	2%	16	3%
Computer or Information Sciences	49	6%	380	5%	9	5%	35	8%
Education	47	6%	247	3%	6	3%	35	8%
Engineering	71	9%	1172	14%	29	17%	25	5%
English Language And Literature	15	2%	181	2%	2	1%	13	3%
Family and Consumer Sciences or Human Services	8	1%	36	0%	2	1%	4	1%
Foreign Languages and Linguistics	9	1%	113	1%	1	1%	8	2%
Health, Pre-Health, and Wellness	108	14%	883	11%	23	13%	67	15%
History	11	1%	118	1%	2	1%	7	2%
Law, Criminal Justice, or Safety Studies	27	4%	146	2%	6	3%	17	4%
Mathematics and Statistics	10	1%	324	4%	1	1%	8	2%
Natural Resources and Conservation	14	2%	101	1%	3	2%	9	2%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Personal, Hospitality, and Culinary Services	5	1%	11	0%	0	0%	3	1%
Philosophy, Theology, and Religion	2	0%	45	1%	0	0%	2	0%
Physical Sciences	24	3%	278	3%	5	3%	17	4%
Social Science and Public Administration	64	8%	1211	14%	17	10%	35	8%
Visual and Performing Arts	46	6%	303	4%	21	12%	19	4%
I don't know	20	3%	171	2%	5	3%	13	3%
Students who switched majors	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Did not change major	554	73%	5320	64%	137	79%	328	71%
Changed major	146	19%	1890	23%	27	16%	95	21%
Students who declared a second major	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Did not declare a second major	612	81%	6913	83%	145	84%	371	81%
Declared a second major	88	12%	741	9%	19	11%	53	12%
Self-reported cumulative collegiate GPA	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
	3.51	0.49	3.42	0.50	3.63	0.43	3.48	0.49
Residential environment	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
On-campus residence hall	458	61%	4182	50%	0	0%	458	100%
Off-campus residence hall	1	0%	317	4%	0	0%	1	0%
Living learning program/community	53	7%	1496	18%	53	31%	0	0%
Residential college	0	0%	142	2%	0	0%	0	0%
Honors college	40	5%	126	2%	40	23%	0	0%
LLP & residential college	1	0%	203	2%	1	1%	0	0%
LLP & honors college	0	0%	179	2%	0	0%	0	0%
Residential college & honors college	8	1%	234	3%	8	5%	0	0%
LLP, residential, & honors college	0	0%	45	1%	0	0%	0	0%
Theme-based community	23	3%	342	4%	23	13%	0	0%
Academic-based community	41	5%	79	1%	41	24%	0	0%
Theme & academic-based community	7	1%	53	1%	7	4%	0	0%
Off-campus	122	16%	973	12%	0	0%	0	0%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
On-campus residential requirement	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
No	354	47%	3893	47%	104	60%	250	54%
Yes	258	34%	3470	41%	69	40%	189	41%
LLC participation requirement	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
No	140	19%	1967	23%	134	77%	6	1%
Yes	31	4%	456	5%	30	17%	1	0%
Request to live in residential environment	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Yes, I requested or applied to live in this residential community	152	20%	2051	25%	145	84%	7	2%
Yes, I moved here at a period in the academic year through the room change process because I wanted to be a part of this residential community	1	0%	33	0%	1	1%	0	0%
No, I didn't apply to be in this community; I was placed here	20	3%	698	8%	17	10%	3	1%
No, I moved here at a period in the academic year through the room change process without knowing about this residential community	2	0%	69	1%	1	1%	1	0%
Faculty live in residence hall	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
No	144	19%	2069	25%	53	31%	91	20%
Yes	162	21%	2454	29%	49	28%	113	25%
I don't know	303	40%	2828	34%	70	40%	233	51%
Based on your current residence hall experience:	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Faculty in residence plan academic programs	58	8%	907	11%	29	17%	29	6%
Faculty in residence teach class(es)	27	4%	843	10%	17	10%	10	2%
Faculty in residence plan social programs	142	19%	1531	18%	48	28%	94	20%
Affiliated faculty plan academic programs for your residence hall	74	10%	795	9%	33	19%	41	9%
Affiliated faculty hall teach class(es) in the building	33	4%	507	6%	12	7%	21	5%
Affiliated faculty plan social programs for your residence hall	121	16%	1234	15%	36	21%	85	19%
There are no faculty associated with your residence hall	272	36%	2649	32%	71	41%	201	44%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
Based on your current resident hall experience:	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Not including student staff (e.g. RA), professional staff plan academic programs for your residence hall	99	13%	1943	23%	47	27%	52	11%
Not including student staff (e.g. RA), professional staff plan social programs for your residence hall	33	4%	600	7%	15	9%	18	4%
Not including student staff (e.g. RA), professional staff teach class(es) in the building	197	26%	3115	37%	67	39%	130	28%
There are no professional staff associated with your residence hall	336	45%	2617	31%	78	45%	258	56%
Do you plan to return to the same college or university next fall?	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Yes	659	87%	7681	92%	152	88%	399	87%
No, I am graduating this year	36	5%	316	4%	11	6%	23	5%
No, I am enrolling at a different college or university	19	3%	129	2%	4	2%	11	2%
No, I will not be pursuing any form of education next fall	8	1%	49	1%	1	1%	4	1%
Undecided	32	4%	192	2%	5	3%	22	5%
During the CURRENT school year, how would you describe the ways you have connected with new people (choose all that apply):	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Introduced myself	509	68%	6476	77%	132	76%	322	70%
At a floor event	137	18%	3149	38%	60	35%	70	15%
At a building-wide community event	92	12%	1777	21%	32	18%	53	12%
At a university event	186	25%	3857	46%	52	30%	112	24%
In class	547	73%	7526	90%	129	75%	339	74%
Via non-school affiliated social media interactions	279	37%	2496	30%	76	44%	175	38%
Via social media groups created by my hall and/or RA	259	34%	1519	18%	80	46%	161	35%
I have not met any new people	96	13%	308	4%	19	11%	48	10%

Demographics and Residential Options	2021 Sample		2018 & 2019		LLCs		TRPs	
How did your drinking habits change from high school to college?	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
I don't drink alcohol and I never have	302	40%	2354	28%	74	43%	174	38%
I started drinking in college	115	15%	2015	24%	31	18%	70	15%
I am drinking less in college	54	7%	648	8%	16	9%	35	8%
I am drinking more in college	88	12%	1770	21%	16	9%	55	12%
I stopped drinking in college	23	3%	208	2%	3	2%	16	3%
No change	172	23%	1366	16%	33	19%	109	24%
During a typical two week period last semester, how many times did you have 5 or more drinks in a row?	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
None	602	80%	5271	63%	137	79%	363	79%
Once	73	10%	1366	16%	22	13%	39	8%
Twice	34	5%	900	11%	6	3%	25	5%
3 to 5 times	37	5%	636	8%	7	4%	25	5%
6 to 9 times	1	0%	109	1%	0	0%	1	0%
10 or more times	6	1%	78	1%	0	0%	6	1%

APPENDIX C:
REGRESSION TABLES

Table 1

Regression Coefficients for Academic and Intellectual Outcomes

	Academic Confidence	Major Persistence Intention	Career Attitudes	Critical Engagement	Integrative Learning	Intention to Innovate
Cisgender man	0.129	-0.024	0.064	0.057	0.014	0.035
Cisgender woman	0.064	0.175	0.083	-0.142***	0.015	0.167
Genderqueer/Another gender	-0.192	-0.151	-0.146	0.085	-0.029	-0.202
Bisexual	-0.093	-0.22	-0.076	0.191*	0.144	-0.194*
Gay	0.332	0.635*	0.377	0.421	-0.081	0.355
Heterosexual	-0.013	-0.044	0.021	-0.092	-0.194	-0.062
Lesbian	-0.171	-0.186	-0.082	-0.329	0.157	0.026
Queer/Another sexual orientation	-0.055	-0.185*	-0.24	-0.191*	-0.026	-0.125
Another race/ethnicity, including Native American	-0.198	0.812	0.924	-0.367	-0.044	-0.011

*p<0.05, **p<0.01, ***p<0.001

	Academic Confidence	Major Persistence Intention	Career Attitudes	Critical Engagement	Integrative Learning	Intention to Innovate
Asian/Asian American & Pacific Islander	-0.173	-0.179	-0.359	-0.193	0.004	0.037
Black/African American students	-0.152	-0.281	-0.202	0.431	0.175	-0.038
Latina/o/x/Hispanic	0.143	-0.194	-0.173	0.124	-0.098	-0.082*
More than one race	0.288	-0.074	-0.073	-0.031	-0.002	0.095
White students	0.091	-0.084	-0.117	0.036	-0.036	-0.001
Agnosticism	-0.061	-0.036	-0.167	0.119	0.158	0.134
Another worldview	0.044	-0.019	-0.209	-0.157	0.073	-0.019
Atheism	-0.149	0.03	-0.179	0.225	0.18	-0.045
Buddhism	0.209	-0.169	0.729	-0.516	-0.978**	-0.135
Christianity	-0.097	-0.06	0.086	0.082	0.203	0.128
Hinduism	0.191	-0.048	-0.389	-0.011	0.092	0.032
Islam	-0.114	0.326	0.075	0.111	-0.237	-0.251
Judaism	0.179	0.067	0.102	0.007	0.338	0.07
More than one worldview	-0.203	-0.09	-0.048	0.141	0.171	0.086
First Year	-0.222	0.094	0.048	0.077	-0.014	-0.063
Second Year	-0.098	0.251	0.108	0.031	0.1	-0.145
Third Year	0.169	0.405	-0.087	0.117	0.097	0.067
Fourth Year	0.3	-0.034	-0.307	0.339	0.598*	0.273
Fifth Year or higher	-0.149	-0.716	0.239	-0.565	-0.781	-0.133
Arts & Humanities Major	0.048	-0.081	-0.19	0.29	0.277	0.104
Business Major	-0.212	0.011	-0.089	-0.113	-0.243	0.189
Health Sciences Major	0.012	0.103	0.379**	-0.11	-0.046	-0.067
STEM Major	-0.106*	0.016	-0.015	-0.035	-0.07	-0.004
Social Sciences Major	0.112	0.158	0.056	0.047	0.226*	0.105
No Major Selected	0.147	-0.207	-0.141	-0.08	-0.144	-0.327

*$p<0.05$, **$p<0.01$, ***$p<0.001$

	Academic Confidence	Major Persistence Intention	Career Attitudes	Critical Engagement	Integrative Learning	Intention to Innovate
Nationality (0=Domestic; 1=International)	-0.328	0.182	-0.126	0.041	0.064	-0.356
Generational Status (0=Continuing-gen; 1=First-gen)	-0.083	0.022	0.1	-0.015	0.036	-0.013
Transfer student	-0.114	0.069	0.147	0.214*	0.043	-0.102
Cumulative College GPA	0.586**	0.199	0.08*	-0.016	0.013	0.044
Perception of major-related support system	0.17	0.232*	0.327*	0.159	0.399**	0.309*
Discussed learning experiences with peers	-0.018	-0.012	0.033	-0.05	-0.014	0.071
Discussions with diverse peers	0.048	0.105	-0.032	0.141	0.151*	0.009
Discussed sociocultural issues with peers	-0.032	-0.055*	-0.027	0.104	0.082	0.106
Residential environment's influence on major	0.017	0.016	0.102*	0.022	0.065	0.037
General co-curricular engagement	-0.04	-0.042	0.033	-0.043	-0.065	0.015
Perception of peer network	0.01	-0.038	0.05	0.016	-0.033	-0.011
Supportive residential environment	-0.005	0.031	0.009	0.034	0.037	-0.042
Observations	547	547	547	547	547	547
R-squared	.437	.229	.355	.179	.319	.264

*p<0.05, **p<0.01, ***p<0.001

Table 2

Regression Coefficients for Social Outcomes

	Campus Engagement	Campus Sense of Belonging	Mental Health Struggles	Mental Health Help-Seeking	Bystander Knowledge	Bystander Reporting Intention
Cisgender man	-0.145	0.112	-0.316**	-0.025	0.183**	0.03
Cisgender woman	0.022	-0.036	0.272**	-0.176	-0.032	0.061
Genderqueer/Another gender	0.123	-0.076	0.045	0.201	-0.151**	-0.091
Bisexual	0.064	-0.033	-0.038	0.073	0.036	-0.041
Gay	0.136	0.437**	0.317	-0.121	-0.081	0.037
Heterosexual	0.062	0.02	-0.089	0.063	-0.031	0.073
Lesbian	-0.133	-0.251	-0.391*	-0.127	0.036	-0.081**
Queer/Another sexual orientation	-0.13	-0.173	0.201	0.112	0.04	0.011
Another race/ethnicity, including Native American	-0.387	0.336	-0.347	-0.09	0.52	0.174
Asian/Asian American & Pacific Islander	0.174	0.005	0.066	0.087	-0.215	-0.089
Black/African American students	0.066	-0.374*	-0.118	-0.033	-0.187	-0.242
Latina/o/x/Hispanic	-0.202	-0.013	0.213	0.096	-0.134	-0.114
More than one race	0.193	0.085	0.053	-0.085	0.119	0.278
White students	0.155	-0.038	0.132	0.024	-0.103	-0.007
Agnosticism	-0.253**	-0.102	0.162	-0.111	0.242	0.275
Another worldview	-0.171**	-0.104	0.097	-0.037	0.244**	0.255*
Atheism	-0.135	-0.101	0.222	0.155	0.019	0.213
Buddhism	-0.04	0.169	-0.157	-0.308	0.617	-0.254
Christianity	0.088	-0.022	-0.004	0.173	0.219	0.22
Hinduism	0.477	0.228	-0.876	0.145	-0.471	-1.481*

*$p<0.05$, **$p<0.01$, ***$p<0.001$

	Campus Engagement	Campus Sense of Belonging	Mental Health Struggles	Mental Health Help-Seeking	Bystander Knowledge	Bystander Reporting Intention
Islam	-0.091	-0.361	-0.155	0.047	-0.786	0.396
Judaism	0.153	0.287	0.265	-0.183	-0.214*	0.103
More than one worldview	-0.027	0.006	0.445**	0.119	0.131	0.272
First Year	-0.142	-0.06	-0.214	0.055	-0.221	-0.233*
Second Year	-0.093	0.057	-0.035	-0.007	-0.166	-0.312***
Third Year	0.14	0.029	-0.14	0.075	-0.17	-0.042
Fourth Year	-0.052	-0.047	0.143	0.185*	0.082	0.054
Fifth Year or higher	0.147	0.02	0.247	-0.308**	0.475	0.533
Arts & Humanities Major	-0.139	-0.095	0.208	-0.084	-0.065	0.254
Business Major	0.144	0.013	-0.107	0.051	0.003	-0.164
Health Sciences Major	-0.083	0.075	-0.185	-0.032	-0.219	0.108
STEM Major	-0.045	-0.086	0.027	-0.223	0.041	0.038
Social Sciences Major	0.095	0.075	-0.044	-0.004	0.17**	0.054
No Major Selected	0.028	0.017	0.102	0.292	0.069	-0.29
Nationality (0=Domestic; 1=International)	0.113*	0.098	-0.08	0.048	0.21	0.179
Generational Status (0=Continuing-gen; 1=First-gen)	-0.058	0.031	0.049	0.032	-0.01	0.051
Transfer student	0.03	0.084	-0.178	-0.019	0.211	0.265
Cumulative College GPA	0.058	0.017	-0.114	0.007	0.031	-0.032
Perception of major-related support system	0.31*	0.249**	-0.027	0.313**	0.224*	0.102
Discussed learning experiences with peers	-0.067	0.058	-0.014	-0.088	-0.009	0.094
Discussions with diverse peers	0.019	0.084	0.041	0.143	0.059	-0.139
Discussed sociocultural issues with peers	0.071	-0.109	0.159	-0.048	0.074	0.064**

*p<0.05, **p<0.01, ***p<0.001

	Campus Engagement	Campus Sense of Belonging	Mental Health Struggles	Mental Health Help-Seeking	Bystander Knowledge	Bystander Reporting Intention
Residential environment's influence on major	0.045	0.115	0.006	0.109	-0.022	0.124
General co-curricular engagement	0.179*	0.032	0.05	-0.019	-0.107	-0.016
Perception of peer network	0.151	0.055	-0.027	0.056	0.014	0.01
Supportive Residential Environment	0.009	0.304**	-0.137*	0.045	0.067	-0.053
Observations	547	547	547	547	547	547
R-squared	.397	.413	.192	.221	.144	.149

*p<0.05, **p<0.01, ***p<0.001

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Assessment of Collegiate Residential Environments and Outcomes

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