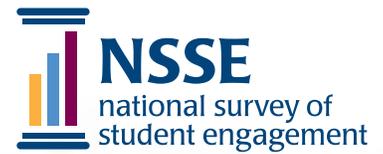


# Engagement Insights

Survey Findings on the Quality of Undergraduate Education



Annual Results 2018

## *Senior Participation in Career-Related Programs and Events*

What activities and experiences build seniors' confidence in their career plans?

## *Career Preparation for Black First-Year Students at HBCUs*

Do HBCUs provide better career guidance than predominantly White institutions?

## *The Role of Majors in Preparing Students for Employment*

How much do different majors help seniors acquire career-related skills?

## *Unconventional Post-College Plans of Graduating Seniors*

What does NSSE tell us about seniors who have uncommon immediate and long-term plans?



# Quick Facts about NSSE 2018

## Audiences

NSSE's audiences include college and university leaders, faculty members, advisors, teaching and learning center staff, assessment professionals, institutional researchers, student life staff, governing boards, students, higher education scholars, accreditors, government agencies, higher education organizations, prospective students and their families, high school counselors, and journalists.

## Participating Colleges & Universities

More than 1,600 four-year colleges and universities in the US and Canada have participated in NSSE since its launch in 2000, with 511 institutions participating in 2018. Participating institutions generally mirror the national distribution of institutions in the 2015 Basic Carnegie Classification (Figure 1).

In addition to the participation of individual institutions, state and multi-campus systems may coordinate system-level participation in NSSE. Institutions sharing a common interest or mission also can coordinate to add questions to the core survey through consortium participation.

## Participation Benefits

Participation benefits include uniform third-party survey administration with several customization options. Deliverables include a student-level data file of all respondents, a comprehensive report package with results for three customizable comparison groups, major field reports, concise summary reports for campus leaders and prospective students, and resources for interpreting results and using them to inform practice.

## Survey

The Center for Postsecondary Research at Indiana University's School of Education administers NSSE, in partnership with the Indiana University Center for Survey Research. Completed in about 15 minutes, the online survey represents a census or a random sample of first-year and senior students. Institutions may append to the core survey up to two Topical Modules, permitting deeper examination of particular interest areas.

## Key Measures

Engagement Indicators (EIs) and measures of participation in High-Impact Practices (HIPs) (pp. 14–15) summarize key facets of student engagement. Visit the NSSE website for summary tables of EIs, HIPs, and individual items.

## Validity & Reliability

NSSE is continuously and extensively tested to ensure validity and reliability. The Psychometric Portfolio available on the NSSE website provides more information about NSSE data quality.

## Response Rate & Respondents

The average institutional response rate in 2018 was 30%. The highest response rate among U.S. institutions was 88%, and three out of five institutions achieved a response rate of 25% or higher. Unless otherwise noted, the results in this report are based on 275,219 first-year (46%) and senior (54%) respondents from 476 U.S. colleges and universities.

The National Survey of Student Engagement (NSSE) documents dimensions of quality in undergraduate education and provides information and assistance to colleges, universities, and other organizations to improve student learning. Its primary activity is annually surveying college students to assess the extent to which they engage in educational practices associated with high levels of learning and development.

## Use of Student Data

Participating colleges and universities agree that NSSE can use the data for aggregate reporting and other research and improvement initiatives. NSSE may not disclose institutionally identified results without permission. Colleges and universities may use their own data for institutional purposes, including public reporting, which NSSE encourages.

## Other Programs & Services

The NSSE Institute offers workshops and webinars, faculty and staff retreats, custom analyses, and consulting. Companion surveys include the Beginning College Survey of Student Engagement (BCSSE) and the Faculty Survey of Student Engagement (FSSE).

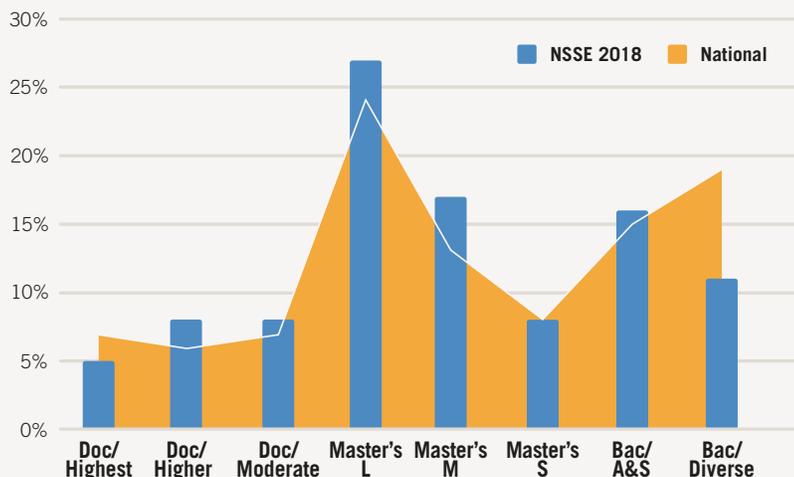
## NSSE Website

The NSSE website includes a participating institution search, sample reports, examples of NSSE data use, summary tables, archived webinars, a research blog, publications, presentations, and more (see page 16).

[nsse.indiana.edu](http://nsse.indiana.edu)

It also provides access to NSSE publications, examples of institutional data use, lists of participating institutions, and much more.

Figure 1: NSSE 2018 Participating Colleges and Universities



### Carnegie 2015 Basic Classification

- Doc/Highest** Doctoral Universities—Highest research activity
- Doc/Higher** Doctoral Universities—Higher research activity
- Doc/Moderate** Doctoral Universities—Moderate research activity
- Master's L** Master's Colleges and Universities—Larger programs
- Master's M** Master's Colleges and Universities—Medium programs
- Master's S** Master's Colleges and Universities—Smaller programs
- Bac/A&S** Baccalaureate Colleges—Arts & Sciences Focus
- Bac/Diverse** Baccalaureate Colleges—Diverse Fields

Percentages are based on U.S. institutions that belong to one of the eight Carnegie classifications above.

[carnegieclassifications.iu.edu](http://carnegieclassifications.iu.edu)

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**Northern Michigan University**

**Cover Image: Queens University of Charlotte**

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# Director's Message

The National Survey of Student Engagement (NSSE) and its companion projects serve bachelor's degree-granting colleges and universities committed to assessing and improving the quality of the undergraduate experience. Created to offer a legitimate and actionable view of college quality, the survey focuses on activities and experiences that decades of prior research have established as important to student learning and development. While NSSE's major products include customized benchmarking reports and data files for participating institutions, our *Annual Results* series presents noteworthy aggregate findings for a nationwide audience. This year's report presents selected results from students at nearly 500 U.S. institutions and subsets of that group where supplemental questions were included. It also provides results from NSSE's companion survey, the Faculty Survey of Student Engagement (FSSE).

Higher education does much more for its students than qualify them for a job. Yet getting a job and other anticipated labor market returns figure prominently in the benefits sought by students, families, and policy makers. In 2016, UCLA's Higher Education Research Institute asked entering first-year students about their reasons for attending college, and 85% rated "to get a better job" as "very important"—surpassing the other six possible reasons provided on the survey. Furthermore, about four out of five students (78%) said "training for a specific career" was very important (Eagan et al., 2017). Reflecting these interests, this year's *Annual Results* examines how colleges and universities are preparing students for work and careers. Our analyses investigated the importance of educational context—with special attention to major—in shaping students' development of workplace-relevant skills such as working with others and solving real-world problems, as well as basic skills valued by employers such as critical thinking and effective writing and speaking. We also asked a subset

of respondents a set of targeted questions about their career goals and their use of career planning resources and related activities. Finally, we used results from NSSE's Topical Module on First-Year Experiences and Senior Transitions to study seniors planning to take less-traveled paths after college.

#### Notable findings include the following:

- Only about half of seniors used career resources during the senior year, but the use of most resources was positively related to confidence in their career plans.
- Black first-year students attending historically Black colleges and universities (HBCUs) took greater advantage of career preparation resources than their peers at predominantly White institutions (PWIs), and they also expressed greater certainty about their career goals. Science, technology, engineering, and mathematics (STEM) faculty who teach lower-division students at HBCUs discussed careers with students more often than their PWI counterparts.
- About 9 in 10 seniors believed what they were learning in college was relevant to their career plans, with a modest difference favoring those majoring in professional fields versus the arts and sciences. Arts and sciences majors were notably less likely than others to say their career goals had stayed the same since beginning college. They also expressed lower confidence in their career plans, but both groups expressed relatively high confidence.
- Seniors' beliefs about how their college experience helped them develop a range of career-relevant skills and competencies were related to their majors. Those majoring in social service professions (criminal justice, public administration, social work, etc.) perceived the greatest contribution to their ability to understand people of other backgrounds. Communications, media, and public relations majors felt their experience had contributed the most to clear and

effective writing and speaking. Relative to the average student, seniors in engineering and the physical sciences reported lower institutional contribution to their growth on these three measures.

In this volume of *Annual Results*, we

report summary information about students' participation in High-Impact Practices (HIPs; see pp. 12–13), which we last covered in *Annual Results 2014*. The 2018 results show few gains in the share of students who have these beneficial experiences, despite sustained interest in HIPs on the part of higher education leaders and associations. Service-learning was the only HIP experienced by more than half of first-year and senior students, while nearly half of seniors participated in an internship or other field experience or in a culminating experience. The findings also reveal persistent gaps in HIP participation for certain populations. These results emphasize the continuing need to expand access to and participation in high-quality HIPs.

NSSE's greater purpose extends beyond administering a survey to promoting evidence-informed improvement of the undergraduate experience. We do this by providing detailed portraits of what institutions do well and where they might improve. To illustrate, colleagues at **Middle Georgia State University**, **University of San Diego**, **University of Wisconsin-Madison**, and **Westmont College** have generously shared examples of how they have put NSSE data to use.

[nsse.indiana.edu/links/lessons](https://nsse.indiana.edu/links/lessons)

NSSE would not have the success it enjoys without the contributions of a great many people. Our institutional contacts provide information needed for our survey process, and they promote survey participation and data use on their campuses. Colleagues at Indiana University's Center for Survey Research manage a complex survey administration. Project staff develop and refine survey content, convert raw data to useful information for participating institutions, and support our continuing research program on the quality of undergraduate education. A National Advisory Board representing diverse roles and constituencies keeps us focused on NSSE's core mission. Most important of all, *hundreds of thousands of students* volunteer their time to help us, our institutional users, and the broader community to gain a better understanding of the contemporary college experience. Please join me in thanking all who make our work possible.

**Alexander C. McCormick, Ph.D.**

**Associate Professor of Educational Leadership and Policy Studies, Indiana University  
Bloomington**

“Higher education does much more for its students than qualify them for a job. Yet getting a job and other anticipated labor market returns figure prominently in the benefits sought by students, families, and policy makers.”

# Selected Results and Institution Stories

## Preparing Students for Work and Careers

The principal theme for our 2018 selected results (pp. 4–11) is how students are prepared for work and careers. Institutions provide career-preparation services and resources, and shape student expectations and aspirations for the labor market through interactions with faculty, staff, and other students. The role of career services has developed and evolved over the years from that of job placement to a more comprehensive model that tailors support for students heading into the job market (Dey & Cruzvergara, 2014). Current programs provide opportunities for students to explore potential careers and develop essential workplace skills.

This section starts with two stories (“Career Preparation Among Seniors” and “Career Preparation for First-Year Students at Historically Black Colleges and Universities” on pp. 4 and 6)

that draw upon a set of experimental questions about student perceptions and experiences with career preparation administered at 38 institutions, including seven HBCUs. Nearly 7,100 students answered questions about their career aspirations, support for career interests, and participation in career-related programs and events.

We then present findings based on results from the core NSSE questionnaire (“The Role of Majors in Preparing Students for Employment” on p. 8) and from the First-Year Experiences and Senior Transitions module (“Unconventional Post-College Plans of Graduating Seniors” on p. 10). Results demonstrate the influence of specific practices and experiences on students’ career preparation.

## Look for the “Faculty Insights”

In addition, we offer “Faculty Insights” throughout this section. These results come from the 2018 administration of the Faculty Survey of Student Engagement (FSSE) in which 13,823 faculty from

113 bachelor’s-granting colleges and universities in the US responded. The FSSE measures faculty members’ expectations and practices related to student engagement in educational activities that are empirically linked with high levels of learning and development. FSSE results, especially when used in combination with NSSE findings, can identify areas of institutional strength as well as aspects of the undergraduate experience that may warrant attention. More information about this project can be found on the FSSE website.

[fsse.indiana.edu](http://fsse.indiana.edu)

## Institution Stories – Examples of Data Use

Throughout this section you’ll also find brief examples from four institutions on how they put NSSE data to use. Many more examples are documented in our series, *Lessons from the Field*.

[nsse.indiana.edu/links/lessons](http://nsse.indiana.edu/links/lessons)

“ NSSE not only provides participating institutions a valid and reliable sense of how their students are learning through engagement with the institution, but also how this compares to other institutions. That’s powerful information for a student-centered institution.”

DAVID LONGANECKER, PRESIDENT, WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION

Rose-Hulman  
Institute of Technology



## Selected Results and Institution Stories *continued*

### Career Preparation among Seniors

During their last year of college, roughly half of the approximately 3,700 seniors who completed the career preparation items *at least sometimes* used career services resources to learn about careers (53%), attended a career fair (49%), or attended a talk or panel discussion about careers (43%), while about three in five interviewed or shadowed a professional in the field (60%) (Figure 2). (Of course, many may have explored career options prior to senior year.)

Most seniors were highly confident in their career and post-graduation plans, although results varied by field of study as some majors (e.g., business, education, engineering, and health professions) are more explicitly linked to specific occupations than majors in the arts and sciences. Students in the arts and sciences were slightly less likely to claim knowledge about their

career options and to say their career goals had stayed about the same since starting college (Figure 3). On average, these students talked less often with professionals in the field about their career interests but did so more often with academic advisors. Overall, and perhaps of more importance to educators, 93% of seniors believed their learning was relevant to their career paths.

We combined three items – being knowledgeable about career options, knowing what one would like to do after graduation, and having a specific career in mind – into a scale called “Confidence in Career Plans” and examined its relationships with a range of factors such as academic discipline and consulting others about career plans, while controlling for student and institutional characteristics. As one

would expect, having conversations about career interests with professionals in the field, academic advisors, and family members was positively, albeit modestly, related to higher confidence in career plans. Having those discussions with career services staff was also related, but weakly.

Students majoring in the arts and sciences expressed somewhat *less* confidence in their career plans. Yet, having the highest educational expectations (e.g., Ph.D., J.D., M.D.) relative to a bachelor’s had a strong, positive relationship with career plan confidence, and arts and science majors were nearly twice as likely as those in professional fields to expect to attain such degrees. It appears that students in the arts and sciences express higher certainty in their specific career plans and what they would like to do after they graduate when they have further education in mind.

Despite not taking full advantage of career preparation resources, seniors have a favorable outlook about the variety of career and employment options available to them. Those who avail themselves of these institutional resources are even more likely to be confident in their options, and even students in fields less directly tied to specific occupations expressed confidence about the next phase of their adult lives.

“ I think my most significant learning experience at this institution has been the undergraduate research I’ve been doing for the past three years as it ties into my course work and a career I want post grad.”

SENIOR, BIOCHEMISTRY, CONNECTICUT COLLEGE

Cornell College



Figure 2: Senior Participation in Career-Related Activities

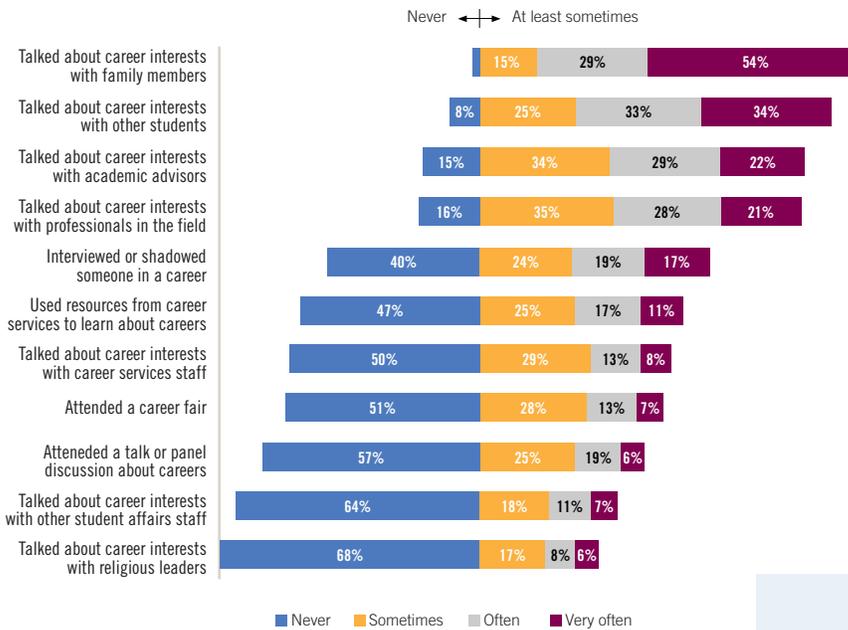
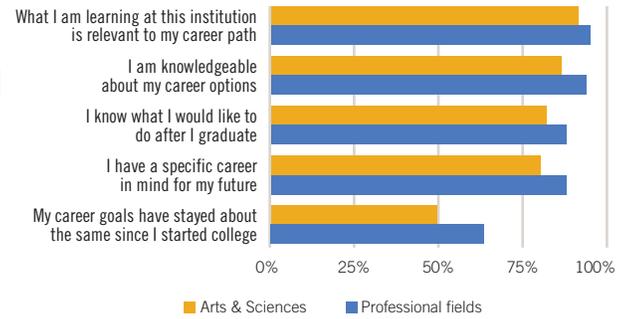


Figure 3: Senior Career-Related Beliefs<sup>a</sup> by Major Type



Note: Arts & Sciences includes arts & humanities, biological sciences, agriculture, natural resources, physical sciences, mathematics, computer science, and social sciences (n=1,203); Professional fields includes business, communications, media, public relations, education, engineering, health professions, and social service professions (n=2,329). To view specific majors within those categories, visit [nsse.indiana.edu/html/major\\_field\\_categories.cfm](https://nsse.indiana.edu/html/major_field_categories.cfm). All item mean differences were statistically significant ( $p < .01$ ).  
 a. Percentage responding "Strongly agree" or "Agree"

## Exploring Career Development at the University of Wisconsin-Madison

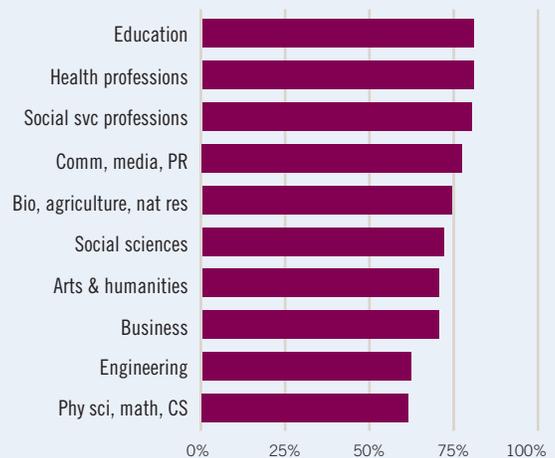
Increased interest in students' career preparation and post-graduation plans motivated **UW-Madison** to create a short report titled "Transferable Skills and Career Services" featuring a combination of career-related results from the NSSE core instrument and the Development of Transferable Skills Topical Module. After review by the Career Services Executive Council, a leadership group of career services staff across schools and colleges, the results were disseminated to programs and faculty in customized reports by eight major fields. Favorable findings included the majority of seniors engaged "Often" or "Very often" in 10 of 11 transferable skills activities such as "Critically evaluated multiple solutions to a problem" and "Discussed complex problems with others to develop a better solution." The reports also pointed to areas for further exploration including students' participation in internships and on-campus employment. For example, the finding that significantly more seniors work on campus for pay at UW-Madison compared to peer institutions supported discussions about making campus employment career development outcomes more obvious and encouraging intentional skill-building. Data on student participation in internships advanced conversations about the varied definitions of internships across majors, including what qualifies, who participates, and how students make the connection to their professional development. Seniors' transferable skills results also reinforced findings from the College of Letters and Science alumni survey, leading to redesigning career advising around career clusters rather than majors.

## Faculty Insights

### Talking about Career Plans in the Disciplines

Although most upper-division faculty frequently talk about career plans with the undergraduate students they teach or advise, this practice varies by faculty discipline (Figure 4). Four in five faculty in Education, Health Professions, and Social Service Professions do so compared to three in five faculty in Engineering, Physical Sciences, Mathematics, and Computer Science.

Figure 4: Percentage of Upper-Division Faculty Who Frequently<sup>a</sup> Talk about Career Plans with Students by Disciplinary Area



Note: See page 3 for information about the Faculty Survey of Student Engagement (FSSE)  
 a. "Very often" or "Often"

# Selected Results and Institution Stories *continued*

## Career Preparation for First-Year Students at Historically Black Colleges and Universities

For the seven HBCUs where the career preparation items were asked, preparing incoming students for both lifelong learning and future employment remains a high priority. The 484 Black first-year students attending HBCUs were generally more confident in their career paths, spoke more often with a variety of people about their career interests, and used institutional resources more often than Black first-year students at predominantly White institutions (PWIs) (N=346). They also interacted with faculty more often than their peers at PWIs.

Statistical comparisons revealed that first-years at HBCUs claimed more knowledge about career options, and were more likely to know what they

would like to do after graduation and to have a specific career in mind (Table 1). Of course, these plans may change over the course of their undergraduate career. HBCU first-year students more often spoke with family members, career services staff, other student affairs professionals, other students, and religious leaders about career interests compared to their counterparts at PWIs. These students also reported attending career fairs, attending career-related talks or panel discussions, and using career services resources significantly more than their peers (Figure 5). They were also more likely to have interviewed or shadowed a working professional, which is noteworthy given how distant graduation is for these students.

Field of study differences between HBCU students and those at other institutions do not appear to explain these results. Roughly the same percentage of students reported majoring in the liberal arts and sciences at HBCUs (38%) as at PWIs (37%). Likewise, similar proportions of students were first-generation at HBCUs (62%) and other institutions (61%) in the sample. First-years at HBCUs were slightly more likely to be enrolled full-time (95%) than their counterparts elsewhere (91%). We conclude that the HBCUs in our sample are more effective than other institutions in providing Black first-year students important knowledge and experiences to assist their career planning early in their college years.

“My most satisfying experience was learning from a Business Advisor in career services. She gave me so much information and provided me with so much feedback with care from the first day I met her!”

FIRST-YEAR STUDENT, ENTREPRENEURIAL STUDIES, FAYETTEVILLE STATE UNIVERSITY

**Figure 5: Percentage of Black First-Year Students Frequently<sup>a</sup> Using Career Preparation Resources**



a. “Very often” or “Often”

**Table 1: Effect of HBCUs on Career Preparation for Black First-Year Students**

	HBCU Effect
I am knowledgeable about my career options	
I know what I would like to do after I graduate	+
I have a specific career in mind for my future	+
My career goals have stayed about the same since I started college	+
What I am learning at this institution is relevant to my career path	
Talked about career interests with family members	+
Talked about career interests with academic advisors	
Talked about career interests with career services staff	+
Talked about career interests with other student affairs staff (housing, student activities, etc.)	+
Talked about career interests with other students	+
Talked about career interests with religious leaders	++
Talked about career interests with professionals in the field	+
Attended a career fair	+++
Attended a talk or panel discussion about careers	+++
Used resources (videos, software, books, etc.) from career services to learn about careers	+++
Interviewed or shadowed someone in a career	+
Talked about career plans with a faculty member	+
Worked with faculty member on activities other than coursework	+
Discussed course topics, ideas, or concepts with a faculty member outside of class	+
Discussed academic performance with a faculty member	+

Key: + $p < .05$ , effect size  $\geq .1$ ; ++ $p < .05$ , effect size  $\geq .3$ . Plus symbols (+) indicate HBCU student averages were significantly higher than those of students at PWIs (none were significantly lower).

## Increasing Student-Faculty Interaction at Westmont College

A common assumption about small, private institutions is that student-faculty interaction is a natural result of the institution type. However, **Westmont College's** most recent NSSE administration indicated this was an area for improvement; student-faculty interaction among Westmont first-year students was lower than their peers. In response, Westmont has committed to finding ways to improve student-faculty interaction, and

identified several strategies that do not require significant resources. One of the main goals was to increase students' access to faculty. For example, they worked with the student government to market to new students their "take a professor to lunch" initiative, in which pairs or small groups of students can invite a faculty member to a meal. They also incorporated faculty members into New Student Orientation in fresh ways. Twenty-five faculty

members hosted groups of about 15–20 new students in their homes. Additionally, Westmont has expanded their first-year seminars, in which faculty members strive to emphasize discussion and writing. Currently, about a third of their first-year students take a first-year seminar, but they hope to make this an integral part of the Westmont experience.

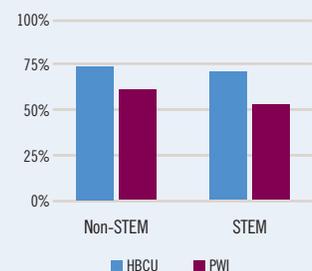


South Dakota  
State University

## Faculty Insights Talking about Career Plans with Lower-Division Students

Overall a greater proportion of non-STEM faculty frequently talk about career plans with the lower-division students they teach or advise compared to their peers in STEM fields (Figure 6). This difference is particularly noticeable at HBCUs, where 7 of 10 STEM faculty frequently do so compared to around half of their counterparts at PWIs.

**Figure 6: Percentage of Lower-Division Faculty Who Frequently<sup>a</sup> Talk about Career Plans by Institution Type and STEM Status**



Note: See page 3 for information about the Faculty Survey of Student Engagement (FSSE)  
a. "Very often" or "Often"

# Selected Results and Institution Stories *continued*

## The Role of Majors in Preparing Students for Employment

The most important reason why students go to college is “to be able to get a better job” (Eagan et al., 2017). Accordingly, colleges and universities play a pivotal role in providing opportunities to develop and hone the skills needed for a competitive job market. Two recent surveys highlight employers’ satisfaction with recent graduates and what employers desire in graduates. The Association of American Colleges and Universities found hiring managers were broadly satisfied (74%) with recent graduates’ abilities to apply their college experiences to their new work environments. The National Association of Colleges and Employers found that employers look for specific experiences such as an internship or prior employment. Common to both studies was a list of qualities employers want in new hires – many of which are captured in a set of “perceived gain” (PG) questions on NSSE that ask students how much their college contributed to their learning and development in specific areas such as solving complex real-world problems, working effectively with others, and writing and speaking clearly and effectively.

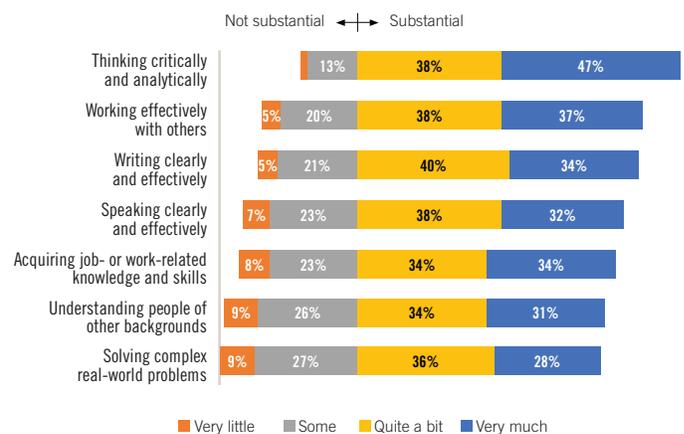
In this section we examine perceived gains by groups of related majors relative to the average senior, adjusting for compositional differences between the major-field groups. To help contextualize these results, Figure 7 presents the overall distributions of perceived gains in workplace skills. Most students indicated that their college experience improved their skills, as roughly two-thirds to three-quarters indicated substantial (“Very much” or “Quite a bit”) gains for most items. The outlier was thinking critically and analytically where 5 in 6 students reported substantial improvement.

Seniors who majored in education or health professions believed that their institution contributed to larger gains in job- and work-related skills than the average senior (Figure 8). In contrast, seniors majoring in the four liberal arts clusters (arts and humanities, biological sciences, physical sciences, and social sciences), perceived fewer gains in these skills. Students in liberal arts fields also perceived fewer gains in working effectively with others, while seniors majoring in communications or education perceived more substantial gains in working effectively with others. Seniors in engineering and social service professions believed that their institutions contributed to their ability to solve complex real-world problems somewhat more than the average senior, while those majoring in arts and humanities, biological sciences, and physical sciences rated their gains in this area lower than average. Students majoring in communications, education, social sciences, and social service professions all perceived greater than average gains in understanding people of other backgrounds. Engineering and physical science majors perceived lower gains than the average senior.

Except for a slight edge among engineering majors, there were few meaningful major-related differences in seniors’ perceived college-related gains in their ability to think critically and analytically (Figure 9). Notably, this is also the area in which seniors report the strongest contribution from their college experience, with 47% responding “Very much” (Figure 7). Seniors in the arts and humanities, communications, social sciences, and social service professions perceived greater gains in writing clearly and effectively compared

to the average senior. Those majoring in communications and social service professions also perceived greater than average gains in their ability to speak clearly and effectively. Regarding both effective writing and speaking, engineering and physical science majors perceived notably lesser gains than the average senior.

**Figure 7: Percentage Distribution of Perceived Gains in Workplace Skills**

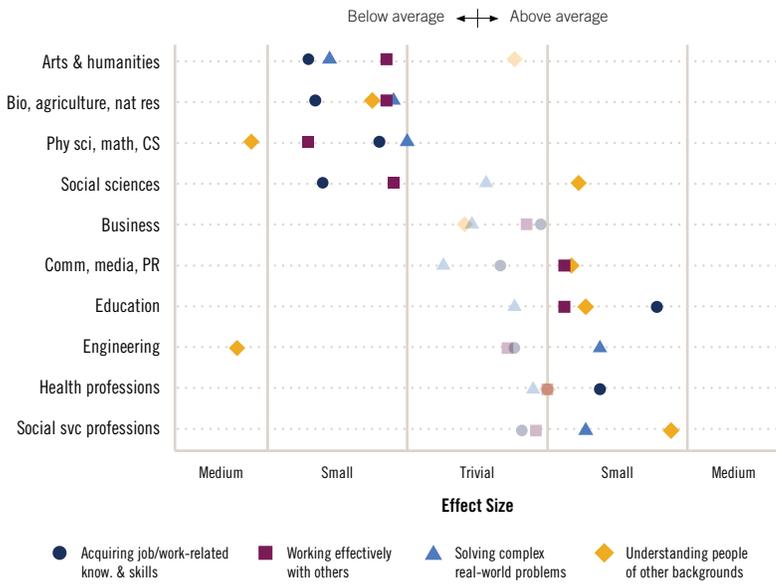


Notes: Excludes double majors. Rows may not sum to 100 due to rounding.

## Advancing Information Literacy as a Core Competency at the University of San Diego

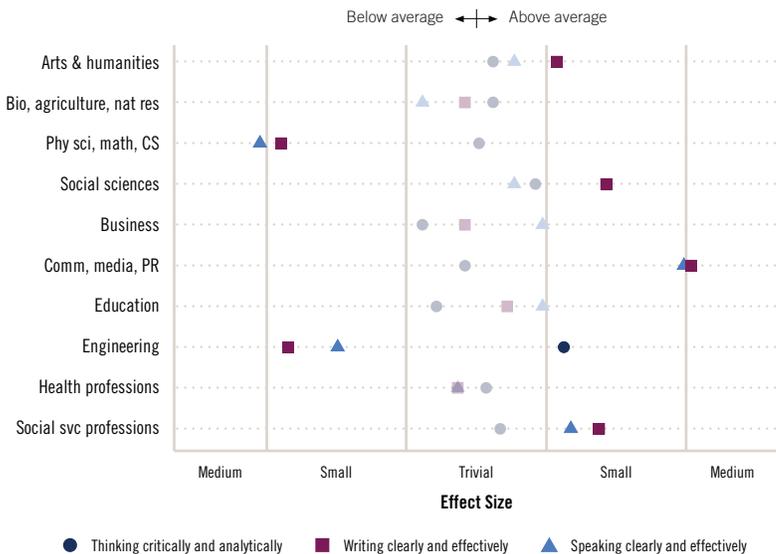
Information literacy as a core competency is a high priority at the **University of San Diego** (USD), where it is recognized as a learning outcome spanning all disciplines and critical to the success of all graduates in their careers and life-long learning. USD results from NSSE’s Experiences with Information Literacy Topical Module provided a baseline assessment of students’ information literacy skills that informed a variety of curricular and support interventions. For example, USD librarians developed curricular offerings to help faculty and students acquire information literacy skills, while core curriculum faculty incorporated the teaching of these skills into the historical inquiry requirement. A writing director was also hired to help ensure information literacy is a core piece of the first-year experience. USD faculty are working to deepen students’ awareness of the importance of gaining these skills. For example, an engineering faculty member describes to students the course’s essential information literacy skills and how students can gain them by completing course assignments. These explicit connections stimulate students to engage in acquiring skills foundational to higher education and careers in the 21<sup>st</sup> century.

**Figure 8: Differences<sup>a</sup> in Perceived Workplace Skills Gains Relative to the Average Senior, by Major Field Category<sup>b</sup>**



The foregoing analysis demonstrates considerable disciplinary differences in the extent to which seniors believe their experience is helping them develop the skills that employers value. The instances where students perceived lesser contributions suggest the need for conversations about where and how departments and institutions can facilitate greater learning and development.

**Figure 9: Differences<sup>a</sup> in Perceived Thinking, Writing, and Speaking Skills Gains Relative to the Average Senior, by Major Field Category<sup>b</sup>**

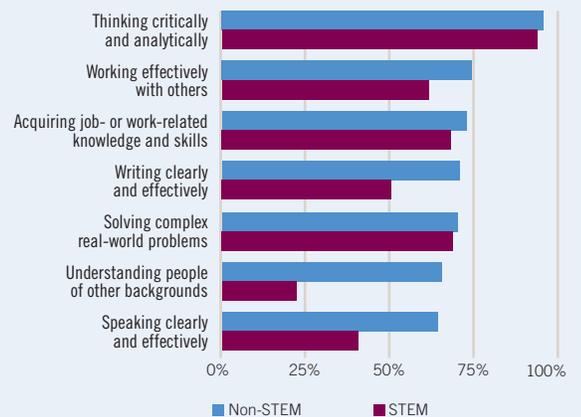


## Faculty Insights

### Course Goals for Student Development

Generally, most STEM and non-STEM faculty who teach upper-division courses substantially structure their courses so that students learn and develop skills in critical thinking, problem solving, and acquire job-related skills (Figure 10). Notably larger proportions of non-STEM faculty structure their courses so that students learn to work with others, better communicate, and understand others than their peers in STEM fields.

**Figure 10: Percentage of Upper-Division Faculty Who Substantially<sup>a</sup> Structure Courses for Aspects of Student Learning, by STEM Status**



Note: See page 3 for information about the Faculty Survey of Student Engagement (FSSE)  
a. "Very much" or "Quite a bit"

Notes: Excludes double majors. Perceived gains items were standardized with a mean of 0 and standard deviation of 1. Results were statistically adjusted for differences between major field groups related to age, first-generation status, sex, sexual orientation, race/ethnicity, enrollment status, transfer status, distance learner status, living situation, institution control, and Basic 2015 Carnegie Classification.  
a. NSSE suggests the following criteria to classify the magnitude of effect sizes: small (>0.1), medium (>0.3), large (>0.5) and very large (>0.7).  
b. The list of individual majors grouped within these categories is on the NSSE website: [nsse.indiana.edu/html/major\\_field\\_categories.cfm](http://nsse.indiana.edu/html/major_field_categories.cfm)

# Selected Results and Institution Stories *continued*

## Unconventional Post-College Plans of Graduating Seniors

The career needs and wants of millennials (born between 1982 and 2000) have been in the popular media recently, including suggestions that this generation has a different perspective on work and employment. They expect many job changes, are more open to self-employment as part of the “gig economy” and want flexible hours and professional development opportunities (Gianniris, 2018). With most of today’s graduating college students being millennials, how do their immediate and long-term career plans align with this supposed pattern?

Using data from over 35,000 seniors at 145 institutions, NSSE’s Senior Transitions Topical Module illuminates some of these trends. A majority of seniors had conventional post-college plans, with about two-thirds planning on full- or part-time employment and another 21% planning to attend graduate school (Figure 11). However, a nontrivial percentage (11%) had what we characterize

as *unconventional* plans, including service or volunteer activity, an internship, a travel or gap year, or other plans. It is perhaps unsurprising that those with unconventional plans felt their major prepared them less well for these plans relative to other graduating seniors, even after controlling for demographic, enrollment, and institution characteristics.

In addition to considering *immediate* plans, it is important to consider *long-term* plans. The module included questions about plans to someday (a) be self-employed, an independent contractor, or a freelance worker; and (b) start a business (nonprofit or for-profit). About one-quarter (28%) of seniors had at least one of these long-term plans. Interestingly, those with plans to be self-employed or start a business were more likely than others to talk about career plans with faculty. This suggests a difference between those with unconventional immediate versus long-term plans (only about 3% fall into both groups.) Conventional employment plans

might be less risky in the short term, and they may allow savvy graduates to gain experience and build up financial capital and social networks before venturing out on their own.

### Immediate Plans

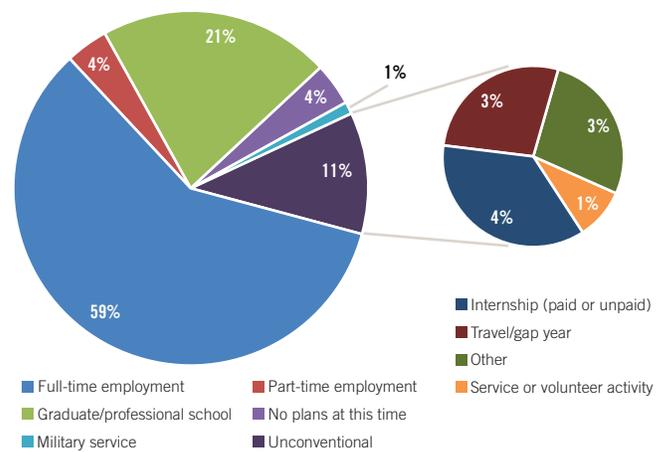
In an analysis that statistically controlled for a variety of student and institutional characteristics, we found that first-generation students were less likely to have unconventional post-college plans, while the opposite was true for those who aspired to complete a doctoral degree. Those majoring in arts & humanities, biological sciences, and social sciences, as well as those who had studied abroad, were also more likely to have unconventional immediate plans. As might be expected, business, education, and engineering majors were less likely to have unconventional plans, as were those who had completed an internship—these experiences have tighter connections to post-college employment opportunities. Interestingly, those more engaged in Reflective & Integrative Learning were more likely to have unconventional immediate plans, while Higher-Order Learning was inversely related (Table 2). Closer examination suggests the former relationship is largely driven by those planning service or volunteer activities after college, who scored significantly higher on Reflective & Integrative Learning than those with other plans (whether conventional or unconventional).

**Table 2: The Relationship Between Engagement, High-Impact Practices, and Unconventional Plans among Seniors**

	Unconventional Immediate Plans	Unconventional Long-Term Plans
<b>Engagement Indicators</b>		
Higher-Order Learning	↓	
Reflective & Integrative Learning	↑	↑
Quantitative Reasoning	↓	↑
Learning Strategies		
Collaborative Learning		↑
Discussions with Diverse Others		
Student-Faculty Interaction		↑
Effective Teaching Practices		↓
Quality of Interactions		↓
Supportive Environment		
<b>High-Impact Practices</b>		
Service-Learning		↑
Learning Community		↑
Research with Faculty		↓
Internship/Field Experience	↓	
Study Abroad	↑	
Culminating Senior Experience		

Notes: Excludes those who said, “No plans at this time.” Career plan categories were dependent variables. Engagement Indicator scores were standardized before entry into logistic regression models. Controls included age, first-generation status, gender identity, diagnosed disability, sexual orientation, international student status, educational expectations, enrollment status, transfer status, distance learner status, major, living situation, estimated GPA, institution size, control, and Carnegie classification.  
Key: ↑ = Odds ratio > 1.0 and  $p < .05$ ; ↓ = Odds ratio < 1.0 and  $p < .05$

**Figure 11: Distribution of Seniors’ Immediate Post-Graduation Plans<sup>a</sup>**



a. Excludes seniors who did not plan to graduate in the spring or summer of 2018.

### Long-Term Plans

The patterns differed for those with unconventional long-term plans. Arts & humanities, business, and communication majors, along with those who aspired to complete a doctoral degree, were more likely to have unconventional plans. On the other hand, those majoring in biological sciences, physical sciences, education, and health professions were less likely to have such plans. Higher levels of Reflective & Integrative Learning, Quantitative Reasoning, Collaborative Learning, and Student-Faculty Interaction were associated with unconventional long-term plans, while the opposite was true for Effective Teaching Practices and Quality of Interactions. Seniors who had participated in service-learning and learning communities were more likely to have unconventional long-term plans, while the opposite was true for those who had done research with faculty (Table 2).

These findings show that some graduating millennials entering the job market have goals and aspirations other than immediate entry into the workforce or graduate school. However, they also demonstrate the importance of distinguishing immediate and longer-term plans. Faculty and career advisors may want to examine how the millennial generation views careers as more fluid and values autonomy more highly, and how to best guide them toward their short- and long-term plans.

### Enhancing the Quality of High-Impact Practices at Middle Georgia State University

In their 2015–2020 Quality Enhancement Plan (QEP) submitted to the Southern Association of Colleges and Schools Commission on Colleges titled “Experiential Learning@MGA,” **Middle Georgia State University** (MGA) undertook to offer students an array of experiential learning opportunities including several high-impact practices (HIPs) with the goal of reinforcing the “student-centered focus of the University’s strategic plan.” The experiential learning approach was selected after analysis of NSSE results and internal assessment data indicated MGA students were participating in some HIPs less frequently than their peers at comparison institutions. For example, NSSE findings showed MGA seniors participated less often in undergraduate research, collaborative learning, and service-learning.

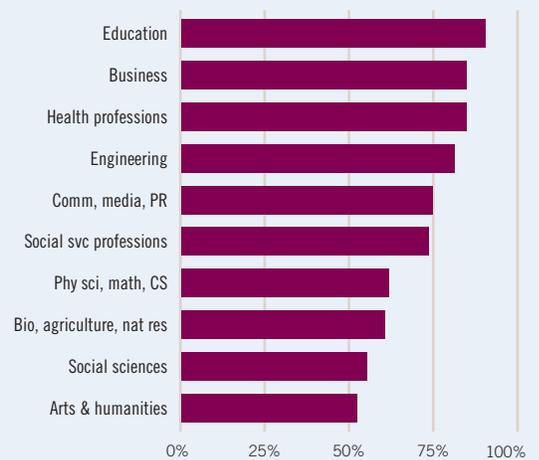
MGA’s QEP is designed to foster students’ progress through four tiers of experiential learning activities. Students are introduced to the QEP and experiential learning ideas at the “bronze level” module and event prior to their first experiential learning course or activity. They then have the opportunity to achieve “silver level,” “gold level,” or “platinum level” by completing additional qualified experiential learning courses and activities throughout their time at the university. MGA developed a rubric with specific evaluative criteria that allows them to qualify courses and activities as experiential learning and to help ensure consistency across these experiences. As MGA carries out their phased implementation of this QEP, NSSE will serve as an important assessment tool.

## Faculty Insights

### Job Skills Development

About 7 in 10 faculty members substantially structure their courses so that students acquire job- or work-related knowledge and skills (Figure 12). This practice varies widely by disciplinary area with nearly all faculty in Education fields doing so compared to half of their peers in Arts & Humanities fields.

**Figure 12: Percentage of Faculty Who Substantially Structure Courses for Job- or Work-Related Knowledge and Skills by Disciplinary Area**



Note: See page 3 for information about the Faculty Survey of Student Engagement (FSSE)  
a. “Very much” or “Quite a bit”



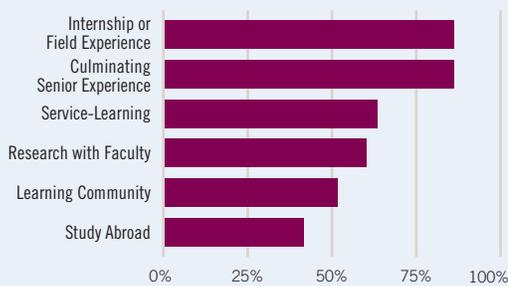
# Selected Results and Institution Stories *continued*

## Faculty Insights

### High-Impact Practices

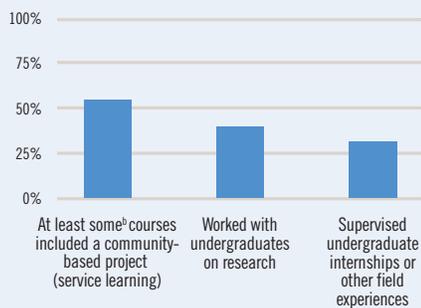
Most faculty think it is important for undergraduates at their institution to participate in an internship or culminating senior experience (Figure 14). Over half of faculty find service-learning, research with undergraduates, and learning communities to be important. The importance of studying abroad is valued by two in five faculty members. Yet, while faculty value these experiences they don't necessarily engage with students in them (Figure 15). Around half of faculty included service-learning in at least some of their courses. Two in five faculty worked with undergraduates on research projects, and a third supervised undergraduate internships or field experiences.

**Figure 14: Percentage of Faculty Who View High-Impact Practices as Important<sup>a</sup>**



Note: See page 3 for information about the Faculty Survey of Student Engagement (FSSE)  
a. "Very much" or "Quite a bit"

**Figure 15: Percentage of Faculty Who Engage Students in Select High-Impact Practices**



a. "Very often" or "Often"  
b. Faculty responding "All", "Most", or "Some"

## A Closer Look at High-Impact Practices

Table 3 displays the percentage of all U.S. respondents who participated in each HIP by selected student and institution characteristics. In general, results show the following:

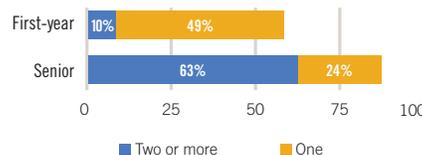
- Seniors at Baccalaureate Arts and Sciences Colleges experienced HIPs at considerably higher rates.
- HIP participation did not vary by gender but did vary somewhat by race/ethnicity, with some students of color less likely to have done research with faculty, study abroad, or an internship or field experience.
- HIP participation was more common among traditional-age students and those enrolled full-time, and somewhat less common among first-generation and transfer students.
- HIP participation varied by major field category. For example, seniors in the biological sciences (including related fields such as agriculture and natural resources) and physical sciences (including math, computer science, etc.) were more likely to participate in research with faculty, while those in education and social service professions were more likely to participate in service-learning.

## Are Students Meeting the HIP Challenge?

NSSE recommends that institutions make it possible for all students to participate in at least two HIPs over the course of their undergraduate experience—including one in the first year and another in the context of the major. Figure 13 displays the percentage of students who participated in High-Impact Practices. About 3 in 5 first-year students participated in at least one HIP, and about 5 out of 8 seniors participated in at least two HIPs.

See page 15 for additional information about HIPs.

**Figure 13: Percentage of Students Experiencing One, or Two or More, HIPs**



Note: All counts include participation in service-learning, learning community, and research with faculty. The senior counts also include internship or field experience, study abroad, and culminating senior experience.

“Being in a learning community my first semester here was a great experience that brought me out of my shell and connected me to many resources I needed as a transfer student who was just coming into her own.”

SENIOR, PSYCHOLOGY, UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

**Table 3: Percentage of Students Who Participated in High-Impact Practices by Institution and Student Characteristics**

		First-Year			Senior					
		Service-Learning	Learning Community	Research w/ Faculty	Service-Learning	Learning Community	Research with Faculty	Internship/Field Exp.	Study Abroad	Culminating Experience
<b>Institution Characteristics</b>		*Corrected from original on 1/26/2019								
<b>Carnegie Classification</b>	R1: Doctoral Universities - Highest research activity	45	15	6	52	23	26	*54	20	42
	R2: Doctoral Universities - Higher research activity	52	14	5	59	24	23	*49	15	43
	R3: Doctoral Universities - Moderate research activity	56	12	4	64	20	17	*42	10	37
	M1: Master's Colleges and Universities - Larger programs	54	11	4	64	21	19	*45	11	45
	M2: Master's Colleges and Universities - Medium programs	59	11	5	68	26	24	*54	13	50
	M3: Master's Colleges and Universities - Smaller programs	58	10	4	68	22	23	*48	10	48
	Baccalaureate Colleges: Arts & Sciences Focus	54	10	6	67	30	44	*68	40	74
	Baccalaureate Colleges: Diverse Fields	61	11	4	69	27	24	*52	10	54
<b>Control</b>	Public	53	12	5	60	22	21	46	11	41
	Private	53	12	5	64	24	25	55	22	52
<b>Undergraduate Enrollment</b>	Fewer than 1,000	66	10	6	73	29	30	58	17	61
	1,000 - 2,499	60	10	5	71	27	30	58	20	60
	2,500 - 4,999	57	13	5	67	26	26	54	18	52
	5,000 - 9,999	54	13	4	64	24	23	49	14	45
	10,000 - 19,999	51	13	5	58	23	24	52	15	46
	20,000 or more	47	11	4	57	19	17	41	11	36
<b>Student Characteristics</b>										
<b>Sex</b>	Female	53	13	4	65	24	23	51	16	45
	Male	54	11	5	57	21	23	46	12	45
<b>Race/Ethnicity or International</b>	American Indian or Alaska Native	54	10	4	55	23	21	38	9	37
	Asian	56	12	6	65	25	24	47	14	42
	Black or African American	57	13	6	67	25	17	40	8	40
	Hispanic or Latino	56	11	4	63	21	18	42	11	38
	Native Hawaiian/Other Pacific Islander	64	7	5	74	24	20	38	8	34
	White	51	13	4	60	23	24	53	16	48
	Other	40	9	0	63	22	25	74	12	49
	Foreign or nonresident alien	67	10	7	73	22	24	38	20	42
Two or more races/ethnicities	50	14	4	62	22	24	48	16	47	
<b>Age</b>	Traditional (FY < 21, Seniors < 25)	54	13	5	64	28	29	60	20	53
	Nontraditional (FY 21+, Seniors 25+)	42	7	5	56	14	12	31	4	33
<b>First-generation<sup>a</sup></b>	Not first-generation	51	14	5	61	25	27	56	20	50
	First-generation	55	11	4	63	20	18	42	9	40
<b>Enrollment</b>	Less than full-time	49	7	4	54	13	12	31	5	30
	Full-time	53	13	5	63	25	25	53	17	49
<b>Residence</b>	Living off campus	52	8	4	61	21	20	49	12	43
	Living on campus	54	15	5	65	33	35	63	28	60
<b>Transfer</b>	Started here	54	13	5	65	29	30	60	22	55
	Started elsewhere	47	9	5	58	16	15	38	6	36
<b>Major Category<sup>b</sup></b>	Arts & humanities	48	14	4	57	22	27	44	25	57
	Biological sciences, agriculture, natural res.	52	14	8	57	25	46	52	19	46
	Physical sciences, math, computer science	46	13	6	43	19	37	46	12	45
	Social Sciences	50	13	5	60	20	31	49	21	48
	Business	55	11	4	56	20	11	43	15	43
	Communications, media, public relations	51	13	4	63	23	20	62	24	58
	Education	60	12	4	79	33	14	68	10	44
	Engineering	48	14	6	45	24	30	56	12	57
	Health Professions	58	12	4	79	25	18	48	9	36
	Social service professions	60	10	4	71	24	16	50	9	41
	Undecided/undeclared	53	7	3	-	-	-	-	-	-
<b>Overall</b>		53	12	5	62	23	23	49	14	45

Notes: Percentages weighed by sex, enrollment status, and institution size. Participating students are those who responded "Done or in progress" for all HIPs except service-learning, where students reported at least "Some" of their courses included a community-based project. Sex, enrollment status, and race/ethnicity are institution-reported variables. For more information on Carnegie Classifications, visit [carnegieclassifications.iu.edu](http://carnegieclassifications.iu.edu)

a. Neither parent holds a bachelor's degree.

b. NSSE's default related-major categories, based on students' first reported major. Excludes majors categorized as "all other."

# Engagement Indicators and High-Impact Practices

To represent the multiple dimensions of student engagement, NSSE reports scores for 10 Engagement Indicators (EIs) calculated from 47 questions and grouped within four themes. Additionally, NSSE provides results on six High-Impact Practices, aptly named for their positive associations with student learning and retention.

## Engagement Indicators

Engagement Indicators provide valuable information about distinct aspects of student engagement by summarizing students' responses to sets of related survey questions.

The EIs and component items were rigorously tested both qualitatively and quantitatively in a multi-year effort that included student focus groups, cognitive interviews, and two years of pilot testing and analysis. As a result, each EI provides valuable, concise, actionable information about a distinct aspect of student engagement.

Theme	Engagement Indicator
Academic Challenge	Higher-Order Learning
	Reflective & Integrative Learning
	Learning Strategies
	Quantitative Reasoning
Learning with Peers	Collaborative Learning
	Discussions with Diverse Others
Experiences with Faculty	Student-Faculty Interaction
	Effective Teaching Practices
Campus Environment	Quality of Interactions
	Supportive Environment

## EI Component Items

### Theme: Academic Challenge

#### Higher-Order Learning

*During the current school year, how much has your coursework emphasized the following:*

- Applying facts, theories, or methods to practical problems or new situations
- Analyzing an idea, experience, or line of reasoning in depth by examining its parts
- Evaluating a point of view, decision, or information source
- Forming a new idea or understanding from various pieces of information

#### Reflective & Integrative Learning

*During the current school year, how often have you*

- Combined ideas from different courses when completing assignments
- Connected your learning to societal problems or issues
- Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
- Examined the strengths and weaknesses of your own views on a topic or issue
- Tried to better understand someone else's views by imagining how an issue looks from their perspective
- Learned something that changed the way you understand an issue or concept
- Connected ideas from your courses to your prior experiences and knowledge

#### Learning Strategies

*During the current school year, how often have you*

- Identified key information from reading assignments
- Reviewed your notes after class
- Summarized what you learned in class or from course materials

“NSSE makes it easy to locate where our strengths and weaknesses are with the Engagement Indicators, as well as how we compare to peer schools. I also like the ability to customize our reports.”

LAYLA SHUMNOK, ASSISTANT DIRECTOR OF INSTITUTIONAL RESEARCH, SAINT PETER'S UNIVERSITY

## Quantitative Reasoning

*During the current school year, how often have you*

- Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)
- Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)
- Evaluated what others have concluded from numerical information

### Theme: Learning with Peers

#### Collaborative Learning

*During the current school year, how often have you*

- Asked another student to help you understand course material
- Explained course material to one or more students
- Prepared for exams by discussing or working through course material with other students
- Worked with other students on course projects or assignments

#### Discussions with Diverse Others

*During the current school year, how often have you had discussions with people from the following groups:*

- People from a race or ethnicity other than your own
- People from an economic background other than your own
- People with religious beliefs other than your own
- People with political views other than your own

## Available on the NSSE Website:

Summary statistics for individual survey questions as well as EI and HIP scores by Carnegie classification, sex, and related-major category: [nsse.indiana.edu/links/summary\\_tables](https://nsse.indiana.edu/links/summary_tables)

The **NSSE Report Builder**—an interactive tool that displays results by user-selected student and institutional characteristics: [nsse.indiana.edu/links/report\\_builder](https://nsse.indiana.edu/links/report_builder)



## Clarion University

### Theme: Experiences with Faculty

#### Student-Faculty Interaction

During the current school year, how often have you

- Talked about career plans with a faculty member
- Worked with a faculty member on activities other than coursework (committees, student groups, etc.)
- Discussed course topics, ideas, or concepts with a faculty member outside of class
- Discussed your academic performance with a faculty member

#### Effective Teaching Practices

During the current school year, to what extent have your instructors done the following:

- Clearly explained course goals and requirements
- Taught course sessions in an organized way
- Used examples or illustrations to explain difficult points
- Provided feedback on a draft or work in progress
- Provided prompt and detailed feedback on tests or completed assignments

### Theme: Campus Environment

#### Quality of Interactions

Indicate the quality of your interactions with the following people at your institution:

- Students
- Academic advisors
- Faculty
- Student services staff (career services, student activities, housing, etc.)
- Other administrative staff and offices (registrar, financial aid, etc.)

#### Supportive Environment

How much does your institution emphasize the following:

- Providing support to help students succeed academically
- Using learning support services (tutoring services, writing center, etc.)
- Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)
- Providing opportunities to be involved socially
- Providing support for your overall well-being (recreation, health care, counseling, etc.)
- Helping you manage your non-academic responsibilities (work, family, etc.)
- Attending campus activities and events (performing arts, athletic events, etc.)
- Attending events that address important social, economic, or political issues

#### High-Impact Practices

High-Impact Practices (HIPs) represent enriching educational experiences that can be life-changing. They typically demand considerable time and effort, facilitate learning outside of the classroom, require meaningful interactions with faculty and other students, encourage collaboration with diverse others, and provide frequent and substantive feedback.

NSSE founding director George Kuh recommends that all students participate in at least two HIPs over the course of their undergraduate experience—one during the first year and one in the context of their major.

NSSE reports student participation or plans to participate in six HIPs (see below).

#### High-Impact Practices

##### Service-Learning

About how many of your courses at this institution have included a community-based project (service-learning)?<sup>a</sup>

##### Learning Community

Participate in a learning community or some other formal program where groups of students take two or more classes together<sup>b</sup>

##### Research with Faculty

Work with a faculty member on a research project<sup>b</sup>

##### Internship or Field Experience

Participate in an internship, co-op, field experience, student teaching, or clinical placement<sup>b</sup>

##### Study Abroad

Participate in a study abroad program<sup>b</sup>

##### Culminating Senior Experience

Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)<sup>b</sup>

a. Response options: "All," "Most," "Some," and "None"

b. Stem question: "Which of the following have you done or do you plan to do before you graduate?" Response options: "Done or in progress," "Plan to do," and "Do not plan to do," "Have not decided"

# Resources Available Online

To support efforts to improve undergraduate education, NSSE provides multiple tools and resources—including those listed below—to participating institutions and others interested in utilizing engagement data.

## Lessons from the Field

Volume 4 highlights examples of data-informed improvement and how institutions are using NSSE results to enhance undergraduate teaching and learning.

All volumes of *Lessons from the Field* can be downloaded from the NSSE website:

[nsse.indiana.edu/html/lessons\\_from\\_the\\_field.cfm](https://nsse.indiana.edu/html/lessons_from_the_field.cfm)

## Data Use in Brief

These briefs present themed summaries — Topical Modules, High-Impact Practices, Specific Student Populations, and Educational Practices — illustrating how institutions have used student engagement results to inform efforts to enhance undergraduate education.

[nsse.indiana.edu/](https://nsse.indiana.edu/)

## How Institutions Use NSSE

A searchable database featuring hundreds of examples of how colleges and universities have used NSSE, FSSE, and BCSSE data is available:

[nsse.indiana.edu/links/data\\_use](https://nsse.indiana.edu/links/data_use)

## NSSE Data User's Guide

This ready-to-use resource assists campus leaders in sharing results and facilitating workshops, presentations, and discussions about their findings. The guide includes worksheets and exercises to identify priorities for action and to generate productive, campuswide conversations among stakeholders about using data for improvement.

[nsse.indiana.edu/html/data\\_users\\_guide.cfm](https://nsse.indiana.edu/html/data_users_guide.cfm)

## Inclusive Data Sharing and Analysis

Designed to help campuses work with data from small student populations, this guide offers tips and resources for analyzing and comparing the experiences reported by these students.

[nsse.indiana.edu/pdf/Inclusive\\_Tips.pdf](https://nsse.indiana.edu/pdf/Inclusive_Tips.pdf)

## NSSE Item Campuswide Mapping

This tool connects NSSE items to institution departments, units, committees, functional areas, and interest groups, and encourages institutions to think more broadly about how engagement data can be shared and used campuswide.

[nsse.indiana.edu/links/item\\_mapping](https://nsse.indiana.edu/links/item_mapping)

## Webinars

Live webinars are offered for faculty, administrators, institutional researchers, and student affairs professionals, and all are recorded and available in NSSE's Webinar Archive. Topics include tips for data use and sharing, interpreting results, ideas for a successful survey administration, trends in engagement research, and much more.

[nsse.indiana.edu/webinars](https://nsse.indiana.edu/webinars)

## Summary Tables

Annual survey responses as well as scores for Engagement Indicators and High-Impact Practices are available by Carnegie classification, sex, and related-major category:

[nsse.indiana.edu/links/summary\\_tables](https://nsse.indiana.edu/links/summary_tables)

## NSSE Report Builder

This interactive tool displays NSSE results by user-selected student and institutional characteristics. Two versions are available:

- The *Public Version* is for media, institutions, researchers, and others interested in unidentified, aggregated results.
- The *Institution Version* is for participating institutions to create tailored reports using their own NSSE data.

[nsse.indiana.edu/links/report\\_builder.cfm](https://nsse.indiana.edu/links/report_builder.cfm)



## NSSE Sightings

*NSSE Sightings* is a blog by CPR staff featuring publications, conference presentations, and other findings about student engagement.

[nsse.sightings.indiana.edu](https://nsse.sightings.indiana.edu)

## Publications and Presentations

NSSE staff actively conduct and present scholarly research on students, faculty, and institutional quality. One such example includes the chapter by McCormick, Kinzie, and Gonyea, "Student Engagement: Bridging Research and Practice to Improve the Quality of Undergraduate Education," in *Higher Education: Handbook of Theory and Research, Vol. 28* (2013, Springer).

For a full list of NSSE-related research articles, book chapters, conference presentations, and other works, visit the searchable database:

[nsse.indiana.edu/html/pubs.cfm](https://nsse.indiana.edu/html/pubs.cfm)

## Psychometric Portfolio

Studies of validity, reliability, and other indicators of NSSE data—including breakdowns by a variety of student and institutional characteristics—are detailed in this resource.

[nsse.indiana.edu/links/psychometric\\_portfolio](https://nsse.indiana.edu/links/psychometric_portfolio)

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# Glossary of Terms Used in This Report

**Control or control variable:** Variables used in statistical models to limit the influence of confounding factors. For example, a model examining the impact of learning strategies on grades might control for major to account for different grading practices across majors.

**Effect size:** An estimate of the practical importance of an observed difference or relationship, often used to complement statistical significance. As in this report, effect sizes can be standardized mean differences (mean difference divided by the standard deviation) or standardized regression coefficients. When comparing means, NSSE classifies effects based on their magnitude as follows: small  $\geq 0.1$ ; medium  $\geq 0.3$ ; and large  $\geq 0.5$  (Rocconi & Gonyea, 2015).

**Engagement Indicator (EI):** See pp. 14-15.

**Logistic regression:** A statistical method that examines how a binary outcome such as yes/no or done/not done is related to a set of explanatory or predictor variables. A logistic regression model estimates the likelihood of the outcome (“yes” or “done” in the examples above) as a function of one or more explanatory variables.

**Odds ratio:** A statistic utilized in interpreting logistic regression results. The odds ratio indicates the change in the odds of the outcome occurring associated with a one-unit change in an explanatory variable, holding constant the effect of other variables in the model. If the odds ratio is greater than one, then the variable is positively associated with the outcome, while an odds ratio less than one signifies a negative relationship. For example, if the explanatory variable “female” has an odds ratio of 1.1, the odds of observing the outcome are 10% higher for females than for males.

**Perceived gains:** A set of NSSE questions that ask how much students believe their experience at the institution contributed to their knowledge and development in various outcomes such as writing and speaking clearly, thinking critically, working effectively with others, etc.

**STEM:** An acronym for majors or disciplines in science, technology, engineering, and mathematics fields.

For further explanation of statistical methods and terminology, refer to: [journalistsresource.org/tip-sheets/research/statistics-for-journalists](http://journalistsresource.org/tip-sheets/research/statistics-for-journalists)

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