



What Does NSSE Tell Us About High Impact Practices(s) and Engagement?

Boise State asks first-year and senior students to participate in the National Survey of Student Engagement (NSSE) every three years. The most recent administration was in 2018. (All of the results from the survey can be found at <https://ir.boisestate.edu/surveys/nsse/>.)

The survey focuses on asking students about their educational experiences, including their interest and/or participation in High Impact Practices (HIPs). HIPs are defined as educational practices that have been identified through research as having a positive effect on students' experiences and success through increased engagement.

Working from the 2018 NSSE results, this report describes differences in how much our students planned to—or actually participated in—HIPs and the probable impact this has on how engaged they feel with Boise State and their education in general. It also compares these results to those of a similar analysis conducted with 2015 NSSE results. (That paper can be found here: <https://ir.boisestate.edu/wp-content/uploads/2017/01/RR-2016-05-What-Does-NSSE-Tell-Us-about-HIPs-and-Engagement-PDF.pdf>.)

The three HIPs first-year students were asked about are participating in a **Learning Community**, participating in **Service-Learning**, and conducting **Research with Faculty**. Seniors were asked about those HIPs as well as about **Internships or Field Experience**, **Study Abroad**, and **Culminating Senior Experiences**.

How is participation in HIPs related to engagement for Boise State students?

Engagement is assessed in 10 areas by NSSE, called Engagement Indicators (EIs):

- Higher-Order Learning (HOL)
- Reflective & Integrative Learning (RIL)
- Learning Strategies (LS)
- Quantitative Reasoning (QR)
- Collaborative Learning (CL)
- Discussions with Diverse Others (DDO)
- Student-Faculty Interaction (SFI)
- Effective Teaching Practices (ETP)
- Quality of Interactions (QI)
- Supportive Environment (SE)

(The items that comprise the Engagement Indicators can be viewed here:

http://nsse.indiana.edu/NSSE_2018_Results/pdf/NSSE_2018_Annual_Results.pdf#page=16.)

In both the 2015 and 2018 analyses, each individual HIP's variable was coded such that the higher of the two values indicated students who either planned to *or* had completed that HIP. Planning and doing have a strong overall relationship and combining them allow for greater statistical power. We utilized this approach as some HIPs had very few actual participants (e.g., Study Abroad).

Three different modeling approaches were used to explore possible relationships between planning to/participating in HIPs and the EIs to determine which model better predicted engagement. The first model only considered whether a student participated in at least one HIP. The second model considered how many HIPs a

student participated in, but did not differentiate between the different HIPs. The third model considered the possible impact of the different HIPs on engagement.

There were two major findings regarding these relationships at Boise State in 2018. First, **all** of the different HIPs were positively associated with one or more EIs after accounting for the effects of demographic variables such as gender, race/ethnicity, and age, as well as GPA. The direction and strength of these relationships did not necessarily differ between first-year and senior students, though of course, senior students had more opportunities for HIP participation than first-year students, as discussed below.

The second finding across both years was that the third modeling approach was most accurate – the relationships between HIPs and EIs varied based on the HIP. In other words, each type of HIP was distinctly related to different types of student engagement. The table below indicates the EIs with which each HIP was positively associated.

Table 1. 2018 HIPs and Engagement Indicators

| | HOL | RIL | LS | QR | CL | DDO | SFI | ETP [‡] | QI | SE |
|--------------------------------|-----|-----|----|----|----|-----|-----|------------------|----|----|
| Learning Community | | | X | X | X | | X | | | |
| Service-Learning | | X | | | | | X | | | |
| Research with Faculty | X | X | X | X | X | | X | | | X |
| Internship or Field Experience | X | | | | X | X | X | | | |
| Study Abroad | | | X | | | | | | | |
| Culminating Senior Experience | X | X | X | | | X | X | | X | X |

[‡]Insufficient number of cases for analysis

Judging from these results (Table 1), Culminating Senior Experience and Research with Faculty equally seemed to have the broadest relationships with student engagement in 2018. **Research with Faculty** was related to all but three engagement indicators (Discussion with Diverse Others, Effective Teaching Practices, and Quality of Interactions). **Culminating Senior Experience** was related to seven of the 10 EIs (all but Quantitative Reasoning, Collaborative Learning, and Effective Teaching Practices).

In 2015 (Table 2), the broadest relationships were between EIs and Service-Learning and Research with Faculty. Study Abroad was unrelated to EIs in 2015 but was related to Learning Strategies in 2018. The most consistently engagement-related HIP across both surveys is **Research with Faculty**.

Table 2. 2015 HIPs and Engagement Indicators

| | HOL | RIL | LS | QR | CL | DDO | SFI | ETP | QI | SE |
|--------------------------------|-----|-----|----|----|----|-----|-----|-----|----|----|
| Learning Community | X | X | | X | X | | X | | | X |
| Service-Learning | X | X | X | X | X | X | X | X | | X |
| Research with Faculty | X | X | X | X | | X | X | | X | X |
| Internship or Field Experience | | | | | X | | X | | | |
| Study Abroad | | | | | | | | | | |
| Culminating Senior Experience | X | X | X | | | | | X | | |

An important distinction in 2018 between first-year and senior students is the structure of the relationships between EIs and HIPs. When looking at students who *planned* to complete different HIPs or actually *completed* one of these different HIPs—compared to those who had neither done nor planned to do them—first year students and seniors are distinct.

Among first-years, it was somewhat more common for a *planned* HIP to be related to one or more EIs. For example, planning (or anticipating) a **Culminating Senior Experience** was positively related to six of 10 EIs. On the other side of the coin, having lived in a Learning Community was positively related to five EIs; the effect of

actually having participated was approximately 3.5 times stronger in relation to the Student-Faculty Interaction EI, for example, than planning to do so.

Among seniors, the positive relationship between HIPs and EIs was almost always due to having *actually completed* a HIP, as might be expected. For example, conducting **Research with Faculty** was slightly more than two times more strongly related to Student-Faculty Interaction (SFI) than planning so. Similarly, completing a **Culminating Senior Experience** is positively related to Reflective & Integrative Learning, Discussion with Diverse Others, and Effective Teaching Practices.

Overall, between 2015 and 2018, there were a couple of meaningful shifts in the percentages of students planning or completing HIPs. The proportion of students planning/participating in a Learning Community increase nine percentage points (16.5 – 25.5%), while the proportion planning/completing an Internship/Field Experience dropped almost 12 percentage points (76.2 – 64.3%). However, Culminating Senior Experience did not evince a large change (-2.4 percentage points), so its stronger relationship with EIs in 2018 is likely due to real underlying relationships.

It is important to note that while these results do not establish a causal relationship between participation in HIPs by Boise State students and engagement, it is reasonable to assume at least a bi-directional impact. Students who feel more engaged are more likely to seek out opportunities to consider and/or participate in HIPs, which further enhance engagement. The challenge then becomes to figure out how to encourage students—especially first-year students—who otherwise might not consider participating in a HIP to do so.

How do students differentially participate in HIPs?

Student demographics such as gender, race/ethnicity, first generation status, residency status, transfer status, and more were considered to compare student differences in HIP participation. The two seemingly most impactful HIP—Culminating Senior Experience and Research with Faculty—exhibited some demographic differences.

For **Culminating Senior Experience**, transfer students and those living off-campus were more likely to plan/complete such an experience. For **Research with Faculty**, non-transfer students, those living on campus, student athletes, non-residents and traditional-aged students were more likely to plan/participate in these kinds of activities.

In addition, the following groups were *less* likely to participate in the following HIPs:

Table 3. HIP differences by key demographics- all students (2018).

| | Living Community | Internships | Study Abroad | Research w/ Faculty | Senior Experience |
|-------------------------|------------------|-------------|--------------|---------------------|-------------------|
| Transfer student | * | * | * | * | |
| Attend < FT | * | * | * | | |
| Live off campus | * | * | * | * | |
| Service member/ veteran | | * | * | | |
| Idaho resident | * | * | * | * | |
| Non-traditional | | | | | |
| Men | | | | | |
| All classes are online | * | * | * | | * |
| Pell Eligible | | | | | |

Note. Demographic differences in planning/participation by gender, first-generation status, or status were significant for only one HIP each.

There are also some subtle differences in demographic distinctions when looking at first-year and senior students separately; those *less* likely to plan/participate include:

Table 4. HIP differences by key demographics and by class level (2018).

| | | Learning Community | Internships | Study Abroad | Service-Learning | Research w/Faculty | Senior Experience |
|------------------------|---------|--------------------|-------------|--------------|------------------|--------------------|-------------------|
| Transfer student | FY | * | | | | | |
| | Seniors | | * | * | | * | |
| Attend < FT | FY | | * | * | * | | |
| | Seniors | | * | | | | |
| Live off campus | FY | * | * | * | | | |
| | Seniors | | * | | | * | * |
| Service member/veteran | FY | | * | * | | | |
| | Seniors | | | | * | | |
| Idaho resident | FY | * | * | * | | | |
| | Seniors | | | | | | |
| Non-traditional | FY | | | * | | | |
| | Seniors | * | * | * | | | |
| Men | FY | | | | | | |
| | Seniors | | | | | | * |
| All classes are online | FY | | | | | | |
| | Seniors | | * | * | | | * |
| Pell Eligible | FY | | | | | | |
| | Seniors | | | | | | * |

By comparison, in **2015**, the differences by class level were:

| | | Learning Community | Internships | Study Abroad | Service-Learning | Research w/Faculty | Senior Experience |
|------------------------|---------|--------------------|-------------|--------------|------------------|--------------------|-------------------|
| Transfer student | FY | | | | | | |
| | Seniors | | | | | | |
| Attend < FT | FY | | * | | | | |
| | Seniors | * | * | | | | |
| Live off campus | FY | | | | | | |
| | Seniors | | | | | | |
| Service member/veteran | FY | | | | | | |
| | Seniors | | | | | | |
| Idaho resident | FY | | | | | | |
| | Seniors | * | | | | | |
| Non-resident students | FY | | | | | | |
| | Seniors | | | | | | * |
| Non-traditional | FY | | | | * | | |
| | Seniors | | * | * | | | |
| Men | FY | | | | | | |
| | Seniors | | | | * | | |
| All classes are online | FY | | | | | | |
| | Seniors | | | | | | |
| Pell eligible | FY | | | * | | | |
| | Seniors | | | | | | |
| White | FY | * | | * | | | |
| | Seniors | * | | | | | |

What are the takeaways and implications?

- All of the 2018 HIPs have a positive relationship with at least one EI. Four of the six HIPs have a positive relationship with at least four EIs.
- Both Culminating Senior Experience and Research with Faculty have a positive relationship with seven EIs each, implying that these HIPs may be especially useful in improving student engagement.
- More engaged seniors have actually completed HIPs, while first-year students evince a mixture of planned and completed HIPs.
- Some types of students do not participate in some HIPs as much as others, such as transfer students, those living off campus, part-time students, and those whose courses are entirely online. Therefore, the university may need to make extra efforts to offer and involve these groups in HIPs.

This paper is part of a series on using Boise State's NSSE 2018 results to answer specific questions about our students. If you have questions about this paper, please contact Nick Warcholak in Institutional Research at nickwarcholak@boisestate.edu.