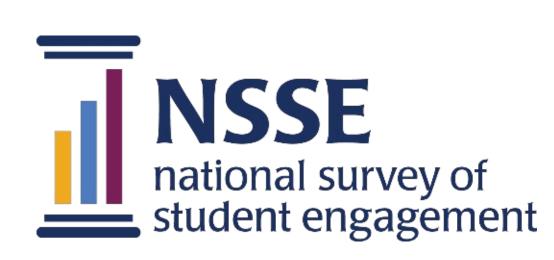# Two Sides of a Coin: Patterns of Student & Faculty Participation in High-Impact Practices

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NSSE national survey of student engagement

FSSE faculty survey of student engagement

Abstract

The higher education community continues to perpetuate high-impact practices as means for improving student success. Yet, challenges exist for assuring all students participate equitably in these beneficial educational experiences; one inhibiting factor may be a lack of faculty support. We examined the responses from **12,147 faculty** and **28,504 seniors** at **83 institutions** to better understand the relationship between faculty who emphasize or participate in high-impact practices and students who do participate. Results indicate potential inequities in faculty participation in engaging students in high-impact practices. Faculty values of importance in participation relates to whether they participate reveling implications for future conversations about faculty hiring and development.

Conceptual Framework

The Webber and colleagues' (2013) approach for measuring faculty and student participation in a high-impact practice guides our research. The authors studied relationships between faculty who emphasize high-impact practices and student participation (Webber et al, 2013). We continue this logic recognizing faculty influence on students. However, we seek to better understand marginalized populations by including more robust measures of demographics (e.g., gender identity, sexual orientation, and ability). As such, our research questions are:

1. Who are the faculty that emphasize student participation and participate in engaging students in high-impact practices?
2. How does faculty participation in high-impact practices predict faculty emphasis of student participation in these practices?
3. How does faculty emphasis of, and participation in, high-impact practices predict student participation?

Literature

An Increased Understanding of High-Impact Practices

With a heightened awareness that student participation does not solely yield positive outcomes, scholars began looking at specific elements of high-impact practices (e.g., student-faculty interaction; BrckaLorenz et al., 2017)

Access & Participation Differences for Students

Not all students participate in high-impact practices at the same rate (Stewart & Nicolazzo, 2019). An opaque understanding of the effects of high-impact practices on marginalized students gives reason for further investigation (Kilgo et al., 2019).

Faculty Perceptions & Participation in High-Impact Practices

Faculty perceive high-impact practices differently depending on their discipline and backgrounds (Fassett & BrckaLorenz, 2020).

@NSSEsurvey

Data

National Survey of Student Engagement (NSSE)

Table 1. Student characteristics

		Count	%
Race/Ethnicity	American Indian or Alaska Native	132	0.6
	Asian	1790	8.0
	Black or African American	2608	11.6
	Hispanic or Latino	2539	11.3
	Middle Eastern or North African	199	0.9
	Native Hawaiian or Other Pacific Islander	53	0.2
	White	12248	54.6
	Another race or ethnicity	166	0.7
	Multiracial	2081	9.3
	I prefer not to respond	635	2.8
Gender Identity	Man	7182	31.9
	Woman	14850	66.0
	Another gender identity	202	0.9
	I prefer not to respond	281	1.2
Sexual Orientation	Straight (heterosexual)	18511	82.5
	Bisexual	1491	6.6
	Gay	385	1.7
	Lesbian	286	1.3
	Queer	275	1.2
	Questioning or unsure	229	1.0
	Another sexual orientation, please specify	265	1.2
	I prefer not to respond	997	4.4
Ability Status	A sensory impairment	160	0.7
	A mobility impairment	111	0.5
	A learning disability	742	3.3
	A mental health disorder	964	4.3
	A disability or impairment not listed above	306	1.4
	More than one disability or impairment	810	3.6
	No disability or impairment	18446	82.3
	Prefer not to respond	884	3.9

Faculty Survey of Student Engagement (FSSE)

Table 2. Faculty characteristics

		Count	%
Race/Ethnicity	American Indian or Alaska Native	64	0.6
	Asian	536	5.3
	Black or African American	928	9.1
	Hispanic or Latino	360	3.5
	Middle Eastern or North African	68	0.7
	Native Hawaiian or Other Pacific Islander	10	0.1
	White	6909	68.0
	Another race or ethnicity	86	0.8
	Multiracial	431	4.2
	I prefer not to respond	764	7.5
Gender Identity	Man	4295	42.4
	Woman	5345	52.8
	Another gender identity	50	0.5
	I prefer not to respond	434	4.3
Sexual Orientation	Straight (heterosexual)	8388	82.6
	Bisexual	207	2.0
	Gay	226	2.2
	Lesbian	144	1.4
	Queer	117	1.2
	Questioning or unsure	9	0.1
	Another sexual orientation	40	0.4
	I prefer not to respond	1027	10.1
U.S. Citizen	No	271	2.7
	Yes	9862	97.3

Additional measures for students: first-generation and academic majors. Additional measures for faculty: discipline, rank, and tenure status.

Measures

Faculty questions

How important is it to you that undergraduates at your institution do the following before they graduate?
Response options: Very important, Important, Somewhat important, Not important
a. Participate in an internship, co-op, field experience, student teaching, or clinical placement
c. Participate in a learning community or some other formal program where groups of students take two or more classes together
d. Participate in a study abroad program
e. Work with a faculty member on a research project
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)
g. Participate in a community-based project (service-learning) as part of a course

During the current school year, have you participated in the following activities?
Response options: 1 Yes, 0 No
a. Supervising undergraduate internships or other field experiences
b. Supervising, mentoring, or teaching undergraduates in a learning community or some other formal program where groups of students take two or more classes together
c. Supervising undergraduates in a study abroad program
d. Working with undergraduates on research
e. Mentoring or teaching undergraduates completing a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolios, etc.)

About how many of your undergraduate courses at this institution have included a community-based project (service-learning)?
Response options: All, Most, Some, None

Student Questions

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, Do not plan to do, Have not decided
a. Participate in an internship, co-op, field experience, student teaching, or clinical placement
c. Participate in a learning community or some other formal program where groups of students take two or more classes together
d. Participate in a study abroad program
e. Work with a faculty member on a research project
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)

About how many of your courses at this institution have included a community-based project (service-learning)?
Response options: All, Most, Some, None

Limitations

- Administrators self-select their institutions into participating in the survey thus generalizing the results outside of the sample may lead to poor inferences.

- Results may be suppressed due to the number of variables included in the models, and the data are correlational in nature thus causal inferences cannot be made.

Analysis & Select Results

Research Question 1 • Descriptives

Education faculty place the highest importance (97.1%) on and participate (52.1%) in internship supervision the most. Meanwhile, arts and humanities faculty place the least importance (75.2%) on internships while physical sciences, mathematics, and computer sciences faculty participate (27.2%) the least.

Research Question 2 • Multiple Regression

The more high-impact practices a faculty participated in the more they emphasized participation for students (B=.28, p<.001) while accounting for academic and demographic characteristics; outcome variable standardized thus coefficients are interpreted as effect sizes. Differences in emphasis also exist by a variety of faculty characteristics (see full paper at nsse.indiana.edu).

Research Question 3 • Logistic Regression

We used aggregate institutional measures of faculty participation and the importance faculty placed on high-impact practices while accounting for student characteristics to predict student participation. The odds students participated in study abroad were greater than any other high-impact practice based on faculty participation in high-impact practices. Faculty importance placed on high-impact practices and participation appeared unrelated to student participation in undergraduate research and service learning, respectively.

Table 3. Faculty participation and importance placed on high-impact practices predicting student participation

	Faculty Importance					Faculty Participation				
	B	S.E.	Odds	Probability	Sig.	B	S.E.	Odds	Probability	Sig.
Internship	-0.20	0.08	0.82	0.45	**	0.54	0.10	1.71	0.63	***
Learning Community	0.64	0.08	0.72	0.42	***	-0.33	0.11	0.72	0.42	**
Study Abroad	-0.48	0.11	0.62	0.38	***	1.77	0.13	5.85	0.85	***
Research	0.07	0.09	1.07	0.52		0.50	0.11	1.64	0.62	***
Capstone Experience	0.81	0.08	1.47	0.59	***	0.38	0.09	1.47	0.59	***
Service Learning	0.47	0.08	1.60	0.62	***	0.20	0.10	1.22	0.55	

*<.05, **<.01, ***<.001; Demographic variables effect coded to account for variation include race/ethnicity, gender identity, sexual orientation, ability status, academic major, first generation, the five other high-impact practices; Outcome variable standardized thus coefficients are interpreted as effect sizes

Discussion & Implications

- By measuring both student and faculty engagement in high-impact practices, institutions gain a greater understanding of the learning mechanisms and the ability to improve student experiences as well as meet accreditation standards

- Providing faculty more professional development around high-impact practices may help them better develop these educational experiences and more easily fit them into curriculum (Paulson, 2012). Institutions should provide faculty training and time for high-impact practices (Murphrey et al., 2016).

- Institutions should create avenues for faculty to (meaning)fully partake in high-impact practices to promote student success.

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