

2012

NATIONAL SURVEY OF STUDENT ENGAGEMENT

SUMMARY REPORT FOR THE

SCHOOL OF ENGINEERING AND TECHNOLOGY

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INTRODUCTION

The National Survey of Student Engagement (NSSE) was developed to achieve a greater understanding of students' educational experiences in college by exploring how institutions emphasize effective teaching practices and student engagement in various activities. The final NSSE report consists of five scales called Benchmarks of Effective Educational Practice (Benchmarks). Each Benchmark consists of a group of scaled items derived from the NSSE survey. The five Benchmarks are Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student-Faculty Interaction (SFI), Enriching Educational Experiences (EEE), and Supportive Campus Environment (SCE). Toward the end of the survey, a series of Learning Gains items are included in order to provide an assessment of students' perceptions of their learning in college. The items in this section have been organized into three scales which reflect general areas of learning in college.

The following report is a summary of responses for the School of Engineering and Technology. This report organizes the NSSE items according to scalelets, or clusters of highly related items that measure a specific aspect of the educational experiences of a group of students. Each scalelet is nested under the corresponding Benchmark with which it is associated. The table below depicts the number of scalelets in each benchmark (as well as the learning gains) for both first-year and senior respondents identified as an "area of strength" (an effect size of 0.2 standard deviations greater than the IUPUI average), "asset to protect" (between 0.05 and 0.2 standard deviations greater than the average), "issue to be mindful of" (between -0.05 and -0.2 standard deviations below IUPUI average) and "opportunity for improvement" (an effect size of 0.2 standard deviations below the IUPUI average or more.)

In Spring semester 2012, a random sample of 3,860 seniors and 2,397 first-year students at IUPUI and IUPUC were invited to complete the original version of NSSE (other students completed the NSSE 2.0 pilot test, for which data is available upon request). A total of 1,043 seniors responded to the survey for a response rate of 27.0%. Similarly, 559 first-year students responded to the survey for a response rate of 23.3%. Of EGTC respondents, 146 were seniors and 43 were first-year students. For further information on NSSE, please contact Steven Graunke in the Office of Information Management and Institutional Research at sgraunke@iupui.edu.

TABLE 1
AREAS OF STRENGTH, ASSETS TO PROTECT, ISSUES TO BE MINDFUL OF, AND OPPORTUNITIES FOR IMPROVEMENT

	Overall descriptor	Total number of Scalelets	Areas of Strength	Assets to Protect		Issues to be Mindful of	Opportunities for Improvement
Level of Academic Challenge							
First-year	Asset to protect	3	0	2	0	0	1
Senior	Opportunity for improvement	3	0	0	0	2	1
Active and Collaborative Learning							
First-year	Area of strength	2	1	0	0	1	0
Senior	Issue to be mindful of	2	0	0	1	0	1
Student-Faculty Interaction							
First-year	Asset to protect	2	0	1	0	1	0
Senior	Opportunity for improvement	2	0	0	0	1	1
Enriching Educational Experiences							
First-year	Asset to protect	3	0	1	2	0	0
Senior	Opportunity for improvement	3	0	0	0	2	1
Supportive Campus Environment							
First-year	Opportunity for improvement	2	0	0	0	1	1
Senior	No label	2	0	1	0	1	0
Learning Gains							
First-year		3	1	0	0	0	2
Senior		3	0	0	1	0	2

TABLE 2
BENCHMARK, SCALELET, AND LEARNING GAINS SCORES FOR
SENIORS ENROLLED IN THE SCHOOL OF ENGINEERING AND
TECHNOLOGY

	N	Mean	Standard Deviation	Standard Error	IUPUI Mean	Effect Size
Level of Academic Challenge ^d	133	52.6	16.1	1.38	56.7	-0.28
Course Challenge ^c	120	61.3	17.9	1.62	63.9	-0.15
Writing ^c	131	41.2	18.5	1.59	44.4	-0.19
Higher-Order Thinking Skills ^d	128	63.6	19.1	1.67	67.6	-0.22
Active and Collaborative Learning ^c	146	48.9	18.1	1.48	52.4	-0.19
Collaborative Learning	131	50.8	20.3	1.75	51.4	-0.03
Active Learning ^d	129	44.6	20.5	1.78	53.4	-0.41
Student-Faculty Interaction ^d	134	35.3	20.7	1.76	39.8	-0.22
Out-of-Class Interaction ^c	128	25.7	25.7	2.24	28.4	-0.10
Course Interaction ^d	132	44.5	22.2	1.90	50.7	-0.24
Enriching Educational Experiences ^d	129	34.2	17.1	1.49	39.8	-0.31
Information Technology ^c	120	75.9	20.5	1.85	77.7	-0.09
Diversity ^c	121	51.1	26.3	2.36	55.8	-0.18
Varied Experiences ^d	118	26.6	19.1	1.74	32.3	-0.29
Supportive Campus Environment	126	57.5	19.8	1.74	57.0	0.03
Interpersonal Environment ^b	129	72.5	20.5	1.78	71.0	0.07
Support for Student Success ^c	120	41.8	24.2	2.18	42.9	-0.05
Gains in Practical Skills	124	73.2	23.4	2.07	72.5	0.03
Gains in Personal and Social Skills ^d	115	48.3	23.6	2.17	54.9	-0.26
Gains in General Education ^d	122	65.4	24.3	2.17	72.8	-0.32

^a“Area of strength”

^b“Asset to protect”

^c“Issue to be mindful of”

^d“Opportunity for Improvement”

TABLE 3
BENCHMARK, SCALELET, AND LEARNING GAINS SCORES FOR
FIRST-YEARS ENROLLED IN THE SCHOOL OF ENGINEERING AND
TECHNOLOGY

	N	Mean	Standard Deviation	Standard Error	IUPUI Mean	Effect Size
Level of Academic Challenge ^b	38	55.0	12.4	1.99	54.0	0.07
Higher-Order Thinking Skills ^b	36	63.1	13.7	2.26	61.0	0.12
Course Challenge ^b	33	66.8	14.7	2.55	65.7	0.08
Writing ^d	36	38.1	16.5	2.73	42.9	-0.30
Active and Collaborative Learning ^a	43	50.2	20.0	3.09	46.3	0.22
Collaborative Learning ^a	39	54.9	21.7	3.45	46.0	0.44
Active Learning ^c	40	42.8	23.4	3.68	45.5	-0.13
Student-Faculty Interaction ^b	39	37.7	22.0	3.49	36.4	0.07
Course Interaction ^b	39	49.3	22.2	3.53	46.2	0.14
Out-of-Class Interaction ^c	34	24.5	26.8	4.56	26.2	-0.08
Enriching Educational Experiences ^b	34	32.5	15.9	2.59	30.6	0.13
Varied Experiences ^b	32	24.1	15.9	2.79	22.5	0.11
Information Technology	33	69.7	21.9	3.79	69.1	0.03
Diversity	33	54.2	25.4	4.40	53.5	0.03
Supportive Campus Environment ^d	33	55.1	16.6	2.87	61.0	-0.33
Interpersonal Environment ^c	34	67.5	21.5	3.67	69.8	-0.12
Support for Student Success ^d	33	43.4	25.2	4.36	52.1	-0.34
Gains in Practical Skills ^a	32	77.4	21.6	3.79	68.8	0.38
Gains in Personal and Social Skills ^d	29	47.9	28.0	5.24	53.6	-0.25
Gains in General Education ^d	32	65.1	23.3	4.10	71.1	-0.27

^a“Area of strength”

^b“Asset to protect”

^c“Issue to be mindful of”

^d“Opportunity for Improvement”