

Iowa State University



About This Report

About Your Multi-Year Report

For institutions participating in multiple NSSE administrations since 2013, the year of the last survey update, this report presents year-to-year results for Engagement Indicators (EIs), High-Impact Practices (HIPs), and key academic challenge items to illustrate patterns of change or stability. It also provides details such as numbers of respondents, standard deviations, and standard errors so that statistical tests can be calculated.

For more information and recommendations for analyzing NSSE data over time, view our webinar entitled *Recommendations for Using Multiple Years of NSSE Data:* http://go.iu.edu/2R1r

This report contains three main parts: (a) a page that provides a quick reference to important information about each year's administration, (b) multi-year figures, and (c) detailed statistics. Key terms and features are illustrated below.

Report sections

Administration Summaries (p. 3)	A summary of respondent counts, response rates, sampling errors, and administration details for each participation year.
Engagement Results by Theme (pp. 4-7)	Results for ten EIs and selected individual survey items are displayed, organized under four broad themes. The Academic Challenge theme is represented by four EIs as well as several individual items. The three remaining engagement themes (Learning with Peers, Experiences with Faculty, and Campus Environment) are each represented by two EIs.
High-Impact Practices (pp. 8-9)	Results for six HIPs are displayed. First-year student results indicate students who participated in service-learning, a learning community, and research with faculty, and who <i>planned to do</i> an internship or field experience, study abroad, and a culminating senior experience. Senior results indicate students who participated in all six.
Detailed Statistics (pp. 10-13)	Displays detailed information for results including counts, standard errors, and confidence intervals (CIs) for each measure.

Interpreting year-to-year results

When examining year-to-year results, you may wonder whether observed differences signify meaningful change and whether a trend is indicated. Figures display CIs around each score showing the range of values that is estimated to contain the population score 95% of the time. Upper and lower CI bounds are also reported in the Detailed Statistics section.

For further investigation

The Report Builder, updated with current data in the fall, allows for multi-year analysis of Engagement Indicators and individual items (including HIPs). It also affords the analysis of results by subpopulation. The Report Builder can be accessed via the NSSE Institution Interface.



Administration Summaries

Iowa State University

The precision of an institution's population estimates can vary between administrations. An important early step in conducting a multi-year analysis is to review data quality. The values in the tables below were drawn from your *Administration Summary* reports.

Response Details by Participation Year

Response rate ^a 24%	Sampling error ^b +/- 2.2%	Total respondents ^c 1,542	Full completions 1,227	Partial completions 315
24%	+/- 2.2%	1,542	1,227	315
15%	+/- 2.5%	1,280	943	337
31%	+/- 1.5%	2,993	2,606	387
27%	+/- 1.8%	2,092	1,742	350
	31%	31% +/- 1.5%	31% +/- 1.5% 2,993	31% +/- 1.5% 2,993 2,606

Administration Details by Participation Year

			Incentives		Report Sample		
Year	Recruitment method	Sample type	offered	Additional question sets	identified ^d	BCSSE	FSSE
2013	Email	Census	No	Transferable Skills, Association of American Universities Data Exchange	No	No	No
2014							
2015							
2016	Email	Census	No	Association of American Universities Data Exchange	No	No	No
2017							
2018							
2019							
2020	Email	Census	Yes	Consortium of Online Learning	No	No	No
2021							
2022							
2023	Email	Census	Yes	HIP Quality, Honors Education Consortium	No	No	No

Note: All of your institution's participation years since 2013 (the first year of the updated NSSE) are reported. Years in which your institution did not participate are blank.

a. Response rates (number of respondents divided by sample size) are adjusted for ineligibility, nondeliverable addresses, and students who were unavailable during the survey administration.

b. Sampling error gauges the precision of results based on a sample survey. It is an estimate (at the 95% confidence level) of how much results for your respondents could differ from those of the entire

population of students at your institution. While data with larger sampling errors (such as +/-10%) need not be dismissed out of hand, such results should be interpreted more conservatively.

c. Count used to calculate response rates and sampling errors for each Administration Summary report. Includes all census-administered and randomly sampled students, regardless of "Report Sample" designation.

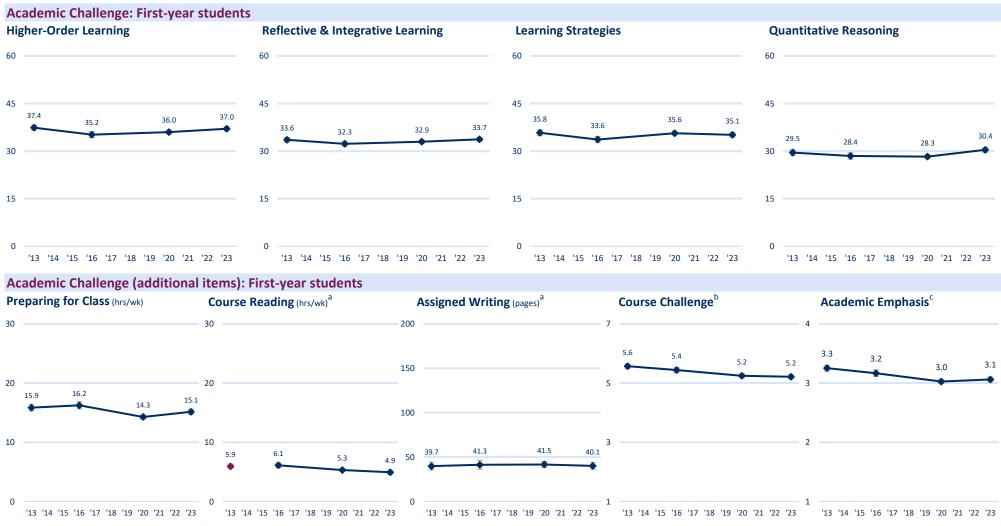
d. Starting in 2017, institutions had the option to flag a subset of students for exclusion from reports. Refer to your Administration Summary reports.



Engagement Results by Theme

Iowa State University

Engagement Indicators (EIs) represent the average student responses to a set of related survey questions. The Academic Challenge theme contains four EIs as well as several important individual items. See the end of this report for detailed statistics. For more information, including the items that make up each EI, refer to your *Engagement Indicators* report.



a. Values for Course Reading and Assigned Writing are estimates calculated from two or more survey questions. The Course Reading item changed in 2014; comparability between 2013 and later years is limited. b. Extent to which courses challenged students to do their best work (1 = "Not at all" to 7 = "Very much").

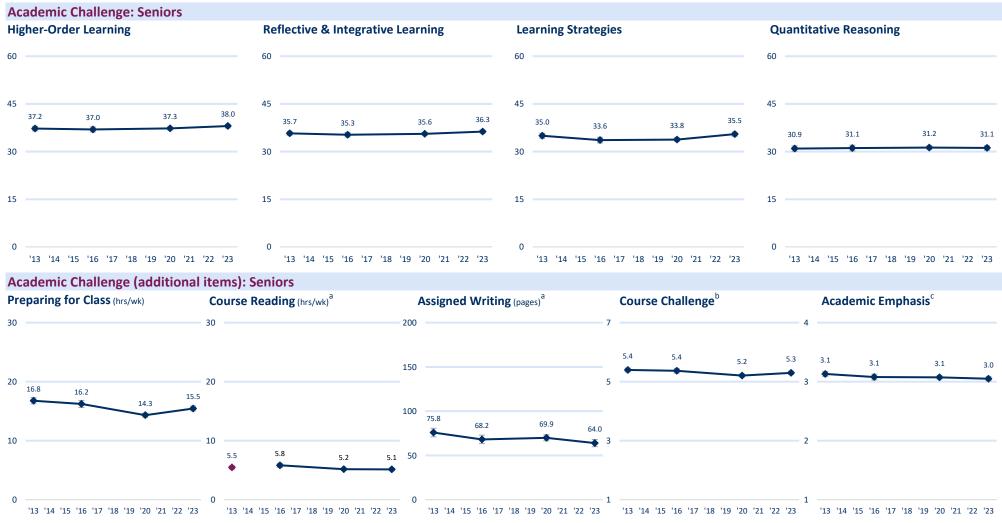
c. How much students said the institution emphasizes spending significant time studying and on academic work (1 = "Very little," 2 = "Some," 3 = "Quite a bit," and 4 = "Very much").



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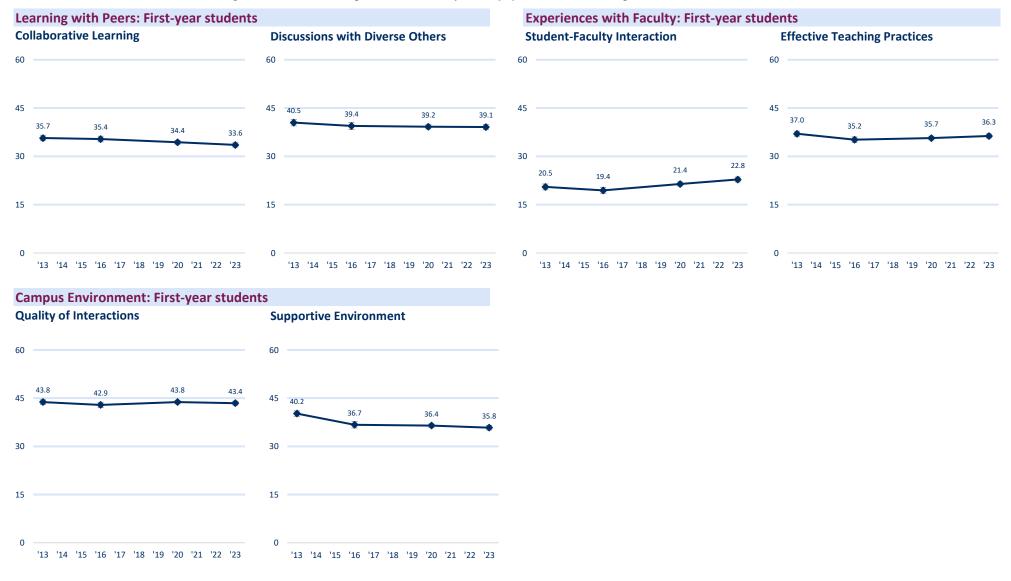
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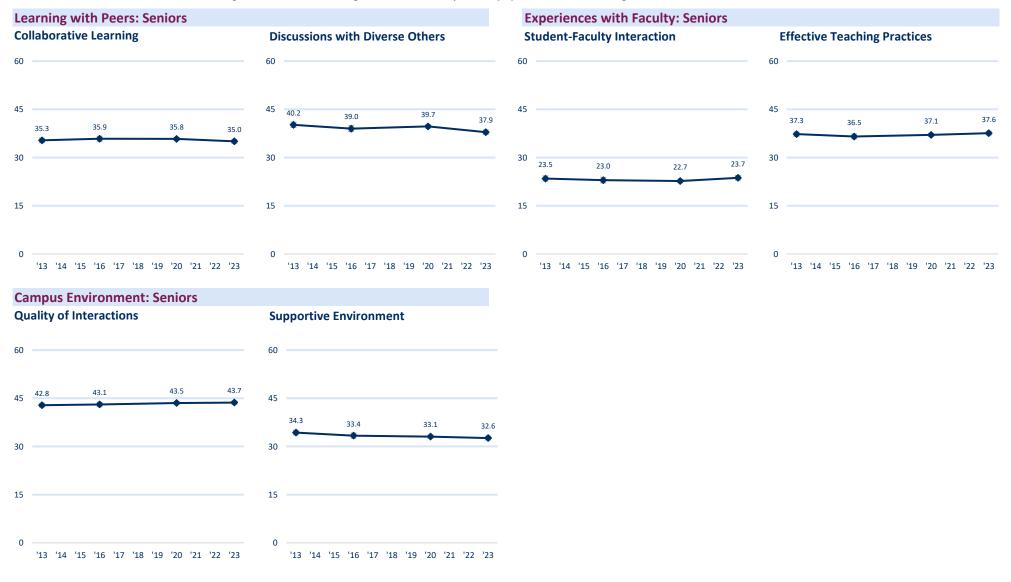




Engagement Results by Theme

Iowa State University

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25%

0%

NSSE 2023 Multi-Year Report

High-Impact Practices Iowa State University

Due to their positive associations with student learning and retention, certain undergraduate opportunities are designated "high-impact." The figures below display first-year students' participation, or intent to participate, in High-Impact Practices (HIPs) by year. See page 13 for detailed statistics. For more information, refer to your *High-Impact Practices* report.

High-Impact Practices: First-year students Service-Learning Learning Community **Research with Faculty** (Some, most, or all courses) (Done or in progress) (Done or in progress) 100% 100% 100% 75% 75% 75% 57% 53% 52% 51% 100% 46% 50% 50% 50% 31% 25% 25% 25% 75% 11% 10% 9% 9% 0% 0% 0% '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 50% Internship/Field Experience **Study Abroad Culminating Senior Experience** (Plan to do) (Plan to do) (Plan to do) 100% 100% 100% 25% 83% 82% 80% 78% 75% 75% 75% 0% 54% 50% 50% 50% 49% 50% 50% 50% 43%

Overall first-year HIP participation

The figure below displays the percentages of first-year students who participated in at least one high-impact practice. The figure is limited to participation in service-learning, a learning community, and research with faculty.



NSSE founding director George Kuh recommends that institutions aspire for all students to 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.



High-Impact Practices Iowa State University

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Detailed Statistics: Engagement Indicators and Additional Challenge Items

Iowa State University

Student eng		5													- 7								
					First-year students												Senio	ors					
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23
Academic Challenge																							
Higher-Order	Mean	37.4			35.2				36.0			37.0	37.2			37.0				37.3			38.0
Learning	n	934			839				1,973			1,377	1,366			1,086				2,696			1,878
	SD	12.7			13.6				12.2			13.0	13.6			13.6				12.6			13.0
	SE	.42			.47				.28			.35	.37			.41				.24			.30
	CI up bnd	38.2			36.1				36.5			37.7	37.9			37.8				37.8			38.
	CI low bnd	36.6			34.3				35.4			36.3	36.5			36.1				36.8			37.4
Reflective &	Mean	33.6			32.3				32.9			33.7	35.7			35.3				35.6			36.3
Integrative	n	981			885				2,053			1,473	1,424			1,155				2,821			1,987
Learning	SD	11.8			12.0				11.2			11.9	12.1			12.0				11.5			11.8
Leanning	SE	.38			.40				.25			.31	.32			.35				.22			.26
	CI up bnd	34.3			33.1				33.4			34.3	36.4			36.0				36.0			36.8
	CI low bnd	32.8			31.5				32.5			33.1	35.1			34.6				35.2			35.8
Learning	Mean	35.8			33.6				35.6			35.1	35.0			33.6				33.8			35.5
Strategies	n	873			725				1,927			1,310	1,291			983				2,640			1,805
	SD	13.5			13.4				13.3			13.5	14.3			14.3				14.2			14.4
	SE	.46			.50				.30			.37	.40			.45				.28			.34
	CI up bnd	36.7			34.6				36.2			35.9	35.7			34.5				34.3			36.1
	CI low bnd	34.9			32.7				35.0			34.4	34.2			32.7				33.2			34.8
Quantitative	Mean	29.5			28.4				28.3			30.4	30.9			31.1				31.2			31.1
Reasoning	n	953			842				1,939			1,326	1,387			1,105				2,648			1,824
	SD	15.0			14.7				14.4			14.7	16.0			15.6				15.0			15.4
	SE	.49			.51				.33			.40	.43			.47				.29			.36
	CI up bnd	30.5			29.4				28.9			31.2	31.8			32.0				31.8			31.8
	CI low bnd	28.6			27.5				27.6			29.6	30.1			30.2				30.7			30.4
Academic Challenge (additional i	tems)																					
Preparing for	Mean	15.9			16.2				14.3			15.1	16.8			16.2				14.3			15.5
Class (hours/week)	п	819			667				1,893			1,277	1,221			933				2,595			1,778
	SD	8.2			8.1				7.7			8.0	9.4			9.3				8.6			8.7
	SE	.29			.31				.18			.22	.27			.30				.17			.21
	CI up bnd	16.4			16.8				14.6			15.6	17.3			16.8				14.7			15.9
	CI low bnd	15.3			15.6				13.9			14.7	16.2			15.6				14.0			15.0
Course Reading	Mean	5.9			6.1				5.3			4.9	5.5			5.8				5.2			5.1
Est. hrs per wk calculated	n	817			663				1,882			1,256	1,219			928				2,579			1,762
from two items. Item	SD	5.4			5.2				4.8			4.5	4.8			5.4				5.0			4.9
wording changed in 2014;	SE	.19			.20				.11			.13	.14			.18				.10			.12
comparability with '13 is	CI up bnd	6.3			6.5				5.5			5.2	5.7			6.2				5.4			5.4
limited.	CI low bnd	5.5			5.7				5.1			4.7	5.2			5.5				5.0			4.9

Notes: n = Number of respondents; SD = Standard deviation; SE = Standard error of the mean; upper and lower bounds represent the 95% confidence interval (mean +/- 1.96 * SE).



Detailed Statistics: Engagement Indicators and Additional Challenge Items

Iowa State University

					First	-year s	studen	ts									Senic	ors					
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23
Academic Challenge ((additional i	tems, co	ontinue	d)																			
Assigned Writing	Mean	39.7			41.3				41.5			40.1	75.8			68.2				69.9			64.0
Estimated number of pages	n	817			700				1,930			1,323	1,229			949				2,635			1,815
calculated from three survey	SD	64.3			66.9				76.5			73.3	85.5			74.5				88.6			88.1
questions.	SE	2.25			2.53				1.74			2.02	2.44			2.42				1.73			2.07
	CI up bnd	44.1			46.3				44.9			44.0	80.6			72.9				73.3			68.0
	CI low bnd	35.3			36.3				38.1			36.1	71.1			63.4				66.5			59.9
Course Challenge	Mean	5.6			5.4				5.2			5.2	5.4			5.4				5.2			5.3
Extent to which courses	n	887			725				1,925			1,307	1,313			992				2,637			1,801
challenged students to do	SD	1.1			1.2				1.2			1.2	1.2			1.2				1.3			1.2
best work (1="Not at all" to 7="Very much").	SE	.04			.05				.03			.03	.03			.04				.02			.03
/= very much).	CI up bnd	5.6			5.5				5.3			5.3	5.5			5.4				5.3			5.4
	CI low bnd	5.5			5.4				5.2			5.1	5.3			5.3				5.2			5.2
Academic	Mean	3.3			3.2				3.0			3.1	3.1			3.1				3.1			3.0
Emphasis	n	827			675				1,914			1,288	1,231			943				2,614			1,785
Perceived inst'l emphasis on spending significant time	SD	0.7			0.7				0.7			0.7	0.8			0.8				0.7			0.8
	SE	.03			.03				.02			.02	.02			.02				.01			.02
studying and on academic	CI up bnd	3.3			3.2				3.1			3.1	3.2			3.1				3.1			3.1
work (1 = "Very little" to 4 = "Very much").	CI low bnd	3.2			3.1				3.0			3.0	3.1			3.0				3.0			3.0
Learning with Peers																							
Collaborative	Mean	35.7			35.4				34.4			33.6	35.3			35.9				35.8			35.0
Learning	n	1,008			948				2,117			1,565	1,460			1,208				2,914			2,056
Leanning	SD	13.4			13.3				13.4			13.7	13.6			13.9				13.6			14.0
	SE	.42			.43				.29			.35	.36			.40				.25			.31
	CI up bnd	36.5			36.2				34.9			34.2	36.0			36.6				36.3			35.7
	CI low bnd	34.9			34.5				33.8			32.9	34.6			35.1				35.3			34.4
Discussions with	Mean	40.5			39.4				39.2			39.1	40.2			39.0				39.7			37.9
Diverse Others	n	873			732				1,924			1,310	1,299			1,000				2,644			1,817
Pricise Others	SD	14.8			15.1				14.6			14.4	15.1			15.1				14.6			14.9
	SE	.50			.56				.33			.40	.42			.48				.28			.35
	CI up bnd	41.5			40.5				39.8			39.9	41.0			39.9				40.2			38.6
	CI low bnd	39.5			38.3				38.5			38.3	39.4			38.1				39.1			37.2

Notes: n = Number of respondents; SD = Standard deviation; SE = Standard error of the mean; upper and lower bounds represent the 95% confidence interval (mean +/- 1.96 * SE).



Detailed Statistics: Engagement Indicators and Additional Challenge Items

Iowa State University

	5-0																						
					First	year s	studen	ts									Senio	ors					
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'2
Experiences with Facu	ılty																						
Student-Faculty	Mean	20.5			19.4				21.4			22.8	23.5			23.0				22.7			23
, Interaction	n	955			858				1,988			1,421	1,397			1,111				2,741			1,92
	SD	14.0			13.5				13.7			14.6	15.0			14.8				15.0			15
	SE	.45			.46				.31			.39	.40			.44				.29			.3
	CI up bnd	21.4			20.3				22.0			23.6	24.3			23.9				23.3			24.
	CI low bnd	19.6			18.5				20.8			22.1	22.7			22.1				22.1			23.
Effective Teaching	Mean	37.0			35.2				35.7			36.3	37.3			36.5				37.1			37.
Practices	n	960			854				1,976			1,381	1,405			1,117				2,698			1,87
1100000	SD	12.4			12.8				12.1			12.2	12.5			12.8				12.0			12.
	SE	.40			.44				.27			.33	.33			.38				.23			.3
	CI up bnd	37.8			36.0				36.2			37.0	37.9			37.3				37.5			38.
	CI low bnd	36.2			34.3				35.2			35.7	36.6			35.8				36.6			37.
Campus Environment																							
Quality of	Mean	43.8			42.9				43.8			43.4	42.8			43.1				43.5			43.
Interactions	n	850			679				1,831			1,237	1,268			955				2,494			1,68
Interactions	SD	10.9			10.6				10.8			10.6	10.5			10.6				10.5			10.
	SE	.38			.41				.25			.30	.30			.34				.21			.2
	CI up bnd	44.5			43.7				44.2			44.0	43.4			43.7				43.9			44.
	CI low bnd	43.0			42.1				43.3			42.8	42.3			42.4				43.1			43.
Supportive	Mean	40.2			36.7				36.4			35.8	34.3			33.4				33.1			32.
Environment	n	821			665				1,905			1,279	1,221			931				2,600			1,78
Environment	SD	12.8			13.1				12.4			12.6	12.8			12.7				12.5			12.
	SE	.45			.51				.28			.35	.37			.42				.24			.3
	Cl up bnd	41.1			37.7				37.0			36.5	35.0			34.2				33.6			33.
	CI low bnd	39.3			35.7				35.9			35.1	33.6			32.5				32.6			32.

Notes: n = Number of respondents; SD = Standard deviation; SE = Standard error of the mean; upper and lower bounds represent the 95% confidence interval (mean +/- 1.96 * SE).



Detailed Statistics: High-Impact Practices

Iowa State University

		•														Senio	ors						
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23
Service-Learning ^a	%	53			51				57			52	50			52				54			51
	n	880			718				1,907			1,288	1,308			985				2,619			1,787
	SE	1.7			1.9				1.1			1.4	1.4			1.6				1.0			1.2
	CI up bnd	56			54				59			55	52			55				56			54
	CI low bnd	50			47				55			50	47			49				52			49
Learning	%	46			44				42			31	41			40				38			38
Community ^a	n SE	883			721				1,917			1,305	1,308			991				2,628			1,800
	SE CI up bnd	1.7 49			1.9 48				1.1 44			1.3 34	1.4 43			1.6 43				0.9 40			1.1 40
	CI up brid CI low bnd	49			48 40				44 40			34 29	43 38			43 37				40 36			40 36
Research with	%	43 10			40 11							9	33			34				29			28
	n	875			717				1,915			1,299	1,301			985				2,626			1,797
Faculty ^a	SE	1.0			1.2				0.7			0.8	1.3			1.5				0.9			1.1
	Cl up bnd	12			13				10			10	35			37				31			30
	CI low bnd	8			9				8			7	30			31				27			26
Internship or Field	%	83			82				80			78	62			69				63			66
	п	885			723				1,923			1,310	1,308			990				2,639			1,802
Experience ^b (First-year results: Plan to	SE	1.3			1.4				0.9			1.2	1.3			1.5				0.9			1.1
	Cl up bnd	86			85				82			80	65			72				65			68
do)	CI low bnd	81			79				78			75	60			66				61			64
Study Abroad ^b	%	48			45				50			43	24			22				24			15
(First-year results: Plan to	п	884			719				1,916			1,300	1,305			983				2,625			1,801
do)	SE	1.7			1.9				1.1			1.4	1.2			1.3				0.8			0.8
	Cl up bnd	51			49				53			46	27			25				26			17
	CI low bnd	44			42				48			40	22			20				22			14
Culminating Senior	%	54			50				50			49	45			49				42 2,630			42
Experience ^b	n SE	882 1.7			713 1.9				1,917 1.1			1,303 1.4	1,305 1.4			986 1.6				2,630			1,798 1.2
(First-year results: Plan to	Cl up bnd	57			1.9 54				52			52	1.4 48			52				44			44
do)	CI low bnd	51			46				48			47	43			46				44			44
Overall HIP Participa		51			40				40			-77				40				-0			U
	(IOII %	42			44				49			48	20			17				21			20
Participated in one	n n	42 890			723				49 1,928			40 1,306	1,315			995				2,641			1,808
HIP	SE	1.7			1.8				1,928			1,300	1,313			1.2				0.8			0.9
	Cl up bnd	46			48				51			50	22			1.2				22			21
	CI low bnd	39			40				47			45	18			15				19			18
Participated in two	%	31			28				27			20	72			75				71			71
	n	890			723				1,928			1,306	1,315			995				2,641			1,808
or more HIPs	SE	1.6			1.7				1.0			1.1	1.2			1.4				0.9			1.1
	CI up bnd	34			31				29			22	74			78				73			73
	CI low bnd	28			25				25			18	69			72				69			69

Notes: n = Number of respondents; SE = Standard error of the proportion (sqrt[(p*(1-p))/(n-1)]) where p is the proportion; upper and lower bounds represent the 95% confidence interval (p+/-1.96*SE).

a. Results are the percentage who had done the activity.

b. First-year results are the percentage who planned to do the activity; Senior results are the percentage who had done the activity.

c. First-year results are limited to participation in a Learning Community, Service-Learning, and Research with Faculty; senior results include all six HIPs.