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# **NSSE 2022**

## **Multi-Year Report**

Western Michigan University

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### 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.

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

First-year students						Seniors				
Year	Response rate <sup>a</sup>	Sampling error <sup>b</sup>	Total respondents <sup>c</sup>	Full completions	Partial completions	Response rate <sup>a</sup>	Sampling error <sup>b</sup>	Total respondents <sup>c</sup>	Full completions	Partial completions
2013	16%	+/- 3.6%	627	462	165	23%	+/- 2.8%	917	749	168
2014										
2015										
2016										
2017	20%	+/- 3.7%	560	366	194	24%	+/- 2.6%	1,051	771	280
2018										
2019										
2020										
2021										
2022	17%	+/- 4.9%	337	201	136	17%	+/- 4.2%	451	295	156

#### Administration Details by Participation Year

Year	Recruitment method	Sample type	Incentives offered	Additional question sets	Report Sample identified <sup>d</sup>	BCSSE	FSSE
2013	Email	Census	No	Academic Advising	No	No	Yes
2014							
2015							
2016							
2017	Email	Census	No	Global Learning, Inclusiv & Cult Div	No	No	Yes
2018							
2019							
2020							
2021							
2022	Email	Census	No	Inclusiv & Cult Div, Career Preparation	No	No	Yes

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.

# NSSE 2022 Multi-Year Report

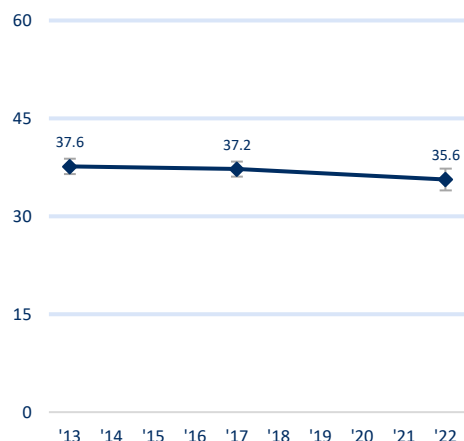
## Engagement Results by Theme

### Western Michigan University

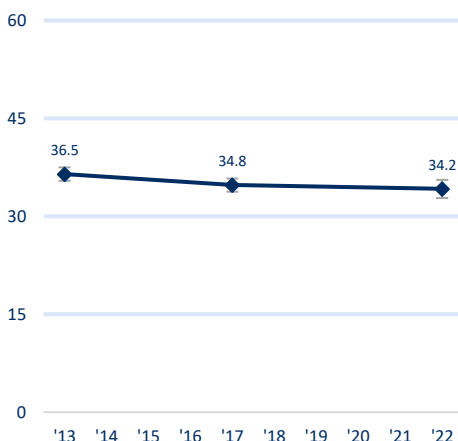
Engagement Indicators (EIs) represent the average student responses to a set of related survey questions. The Academic Challenge theme contains four EIs as well as several important individual items. See pages 10-12 for detailed statistics. For more information, including the items that make up each EI, refer to your *Engagement Indicators* report.

#### Academic Challenge: First-year students

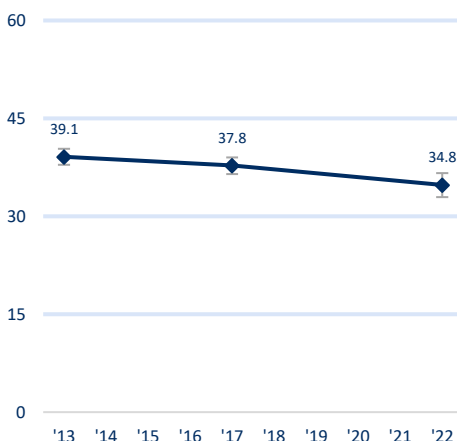
##### Higher-Order Learning



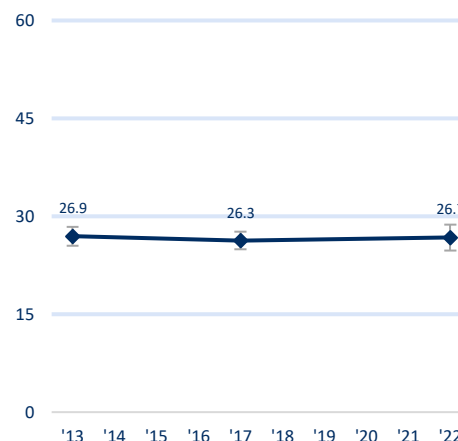
##### Reflective & Integrative Learning



##### Learning Strategies

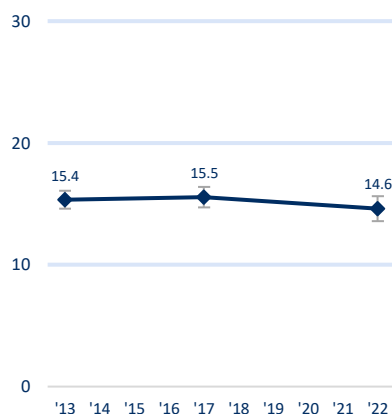


##### Quantitative Reasoning

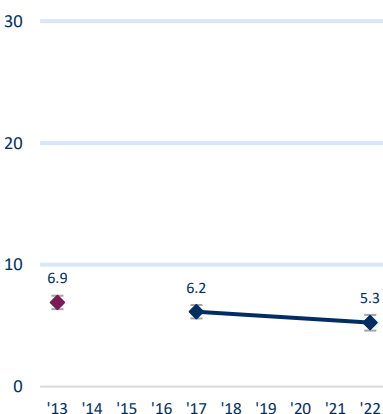


#### Academic Challenge (additional items): First-year students

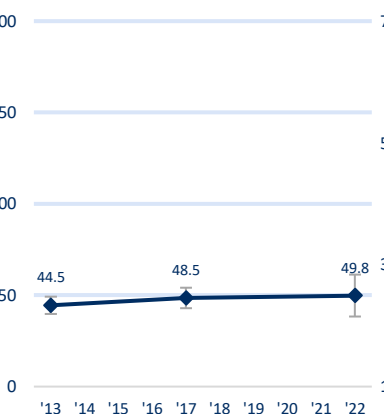
##### Preparing for Class (hrs/wk)



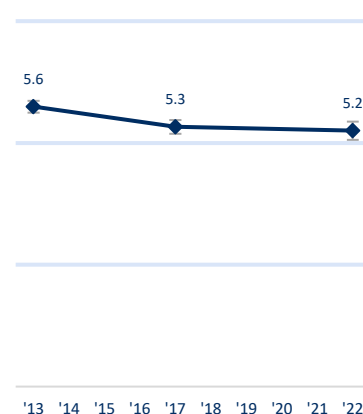
##### Course Reading (hrs/wk)<sup>a</sup>



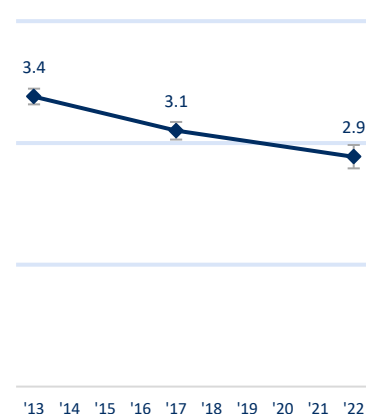
##### Assigned Writing (pages)<sup>a</sup>



##### Course Challenge<sup>b</sup>



##### Academic Emphasis<sup>c</sup>



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").

# NSSE 2022 Multi-Year Report

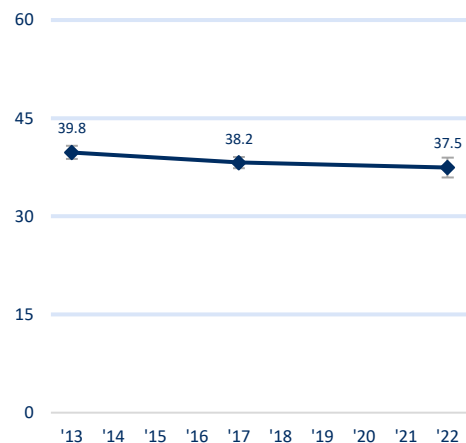
## Engagement Results by Theme

### Western Michigan University

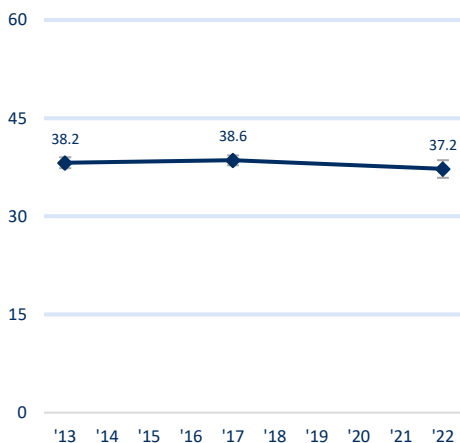
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#### Academic Challenge: Seniors

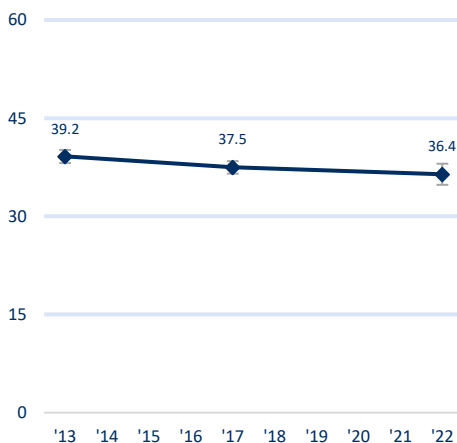
##### Higher-Order Learning



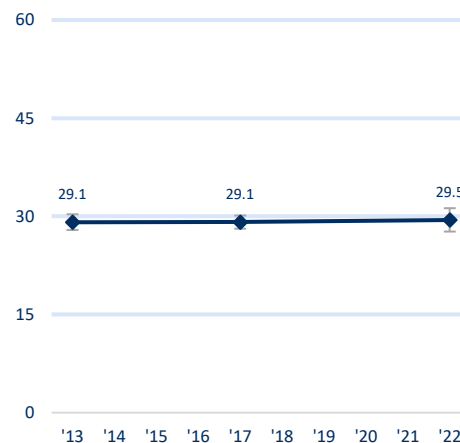
##### Reflective & Integrative Learning



##### Learning Strategies

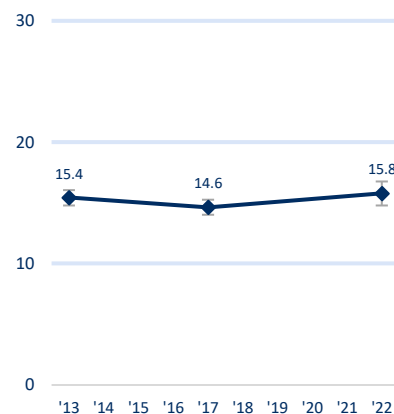


##### Quantitative Reasoning

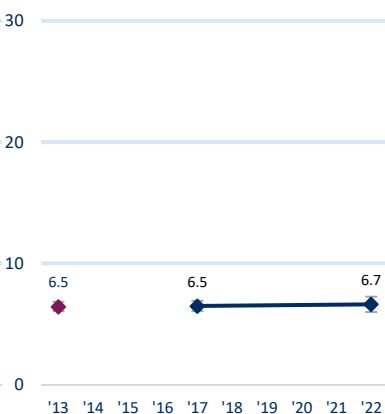


#### Academic Challenge (additional items): Seniors

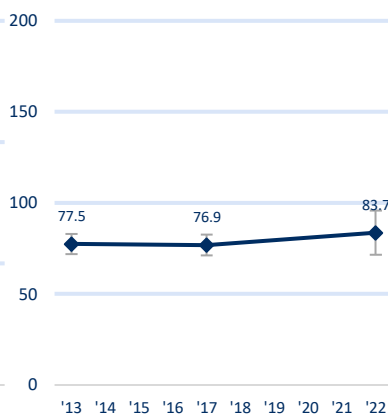
##### Preparing for Class (hrs/wk)



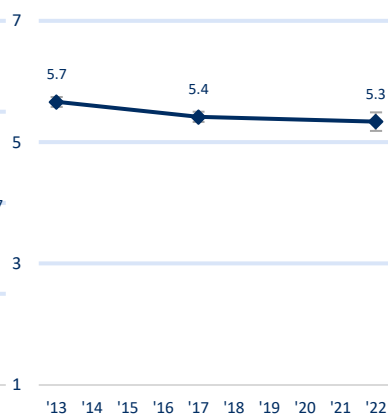
##### Course Reading (hrs/wk)<sup>a</sup>



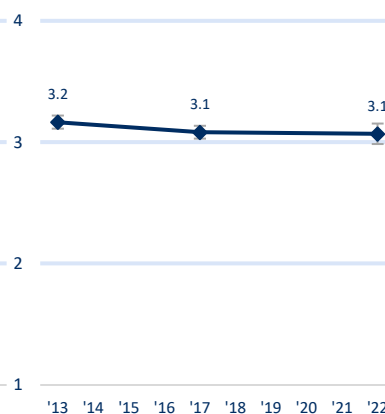
##### Assigned Writing (pages)<sup>a</sup>



##### Course Challenge<sup>b</sup>



##### Academic Emphasis<sup>c</sup>



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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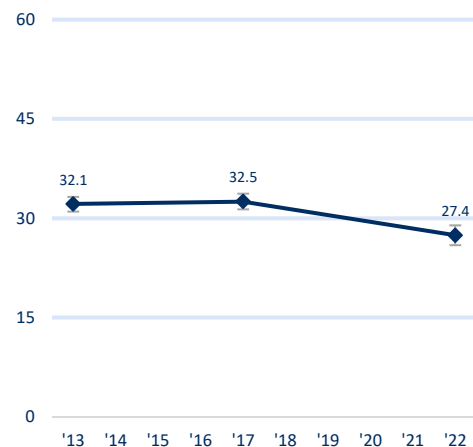
## Engagement Results by Theme

### Western Michigan University

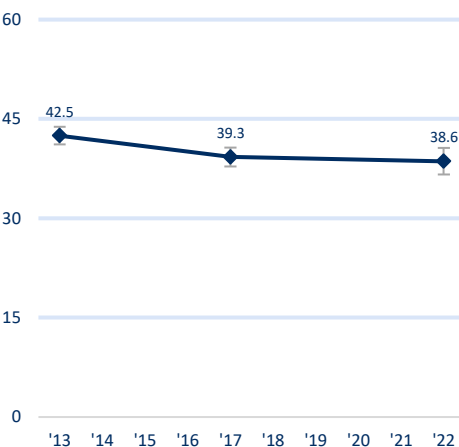
Engagement Indicators (EIs) represent the average student responses to a set of related survey questions. Each theme below is represented by two EIs. See pages 10-12 for detailed statistics. For more information, including the items that make up each EI, refer to your *Engagement Indicators* report.

#### Learning with Peers: First-year students

##### Collaborative Learning

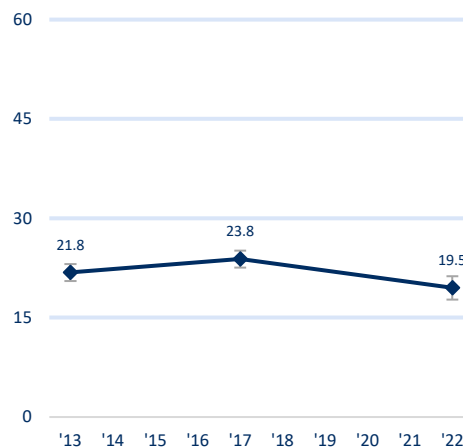


##### Discussions with Diverse Others

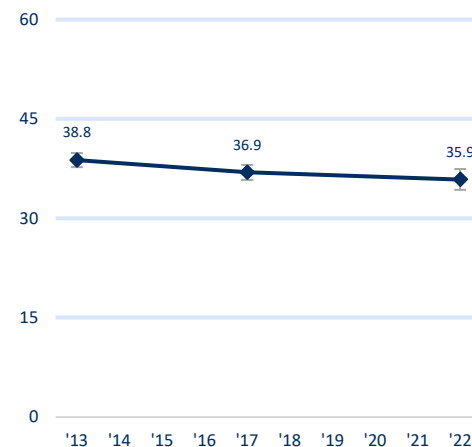


#### Experiences with Faculty: First-year students

##### Student-Faculty Interaction

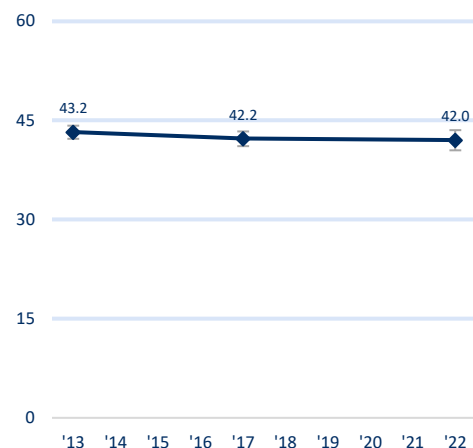


##### Effective Teaching Practices

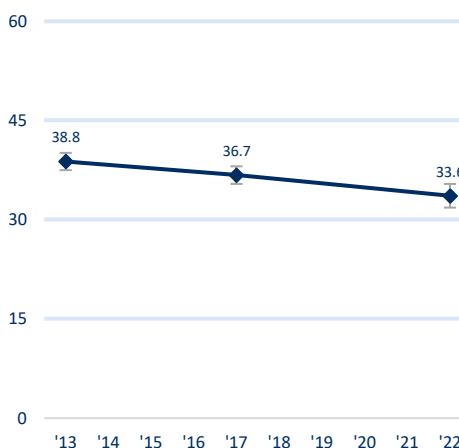


#### Campus Environment: First-year students

##### Quality of Interactions



##### Supportive Environment



# NSSE 2022 Multi-Year Report

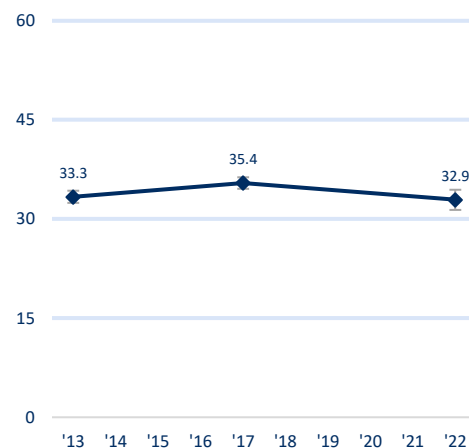
## Engagement Results by Theme

### Western Michigan University

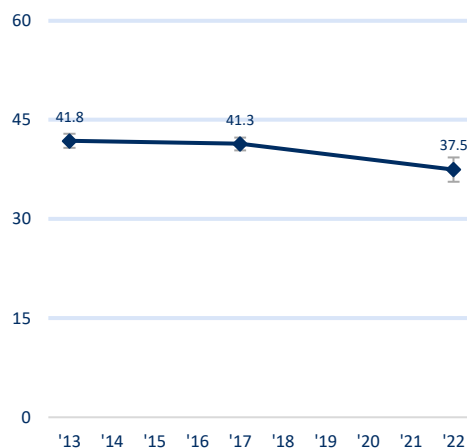
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#### Learning with Peers: Seniors

##### Collaborative Learning

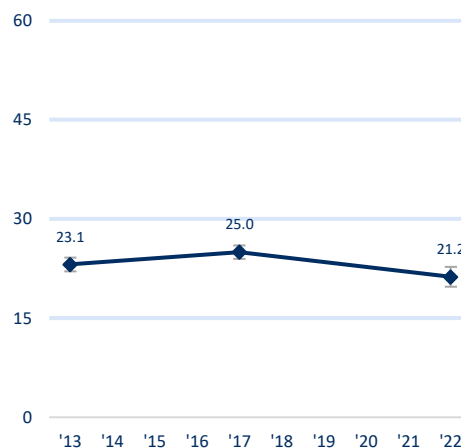


##### Discussions with Diverse Others

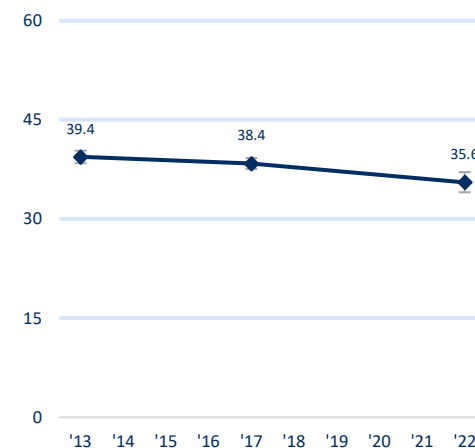


#### Experiences with Faculty: Seniors

##### Student-Faculty Interaction

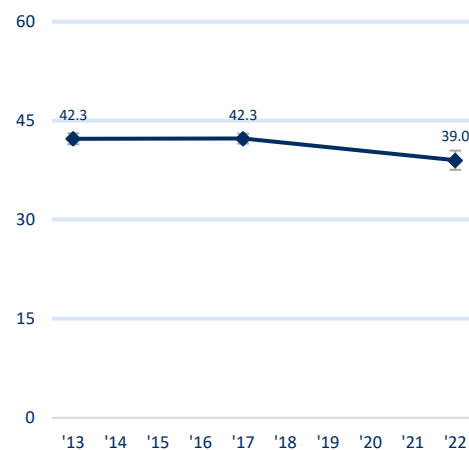


##### Effective Teaching Practices

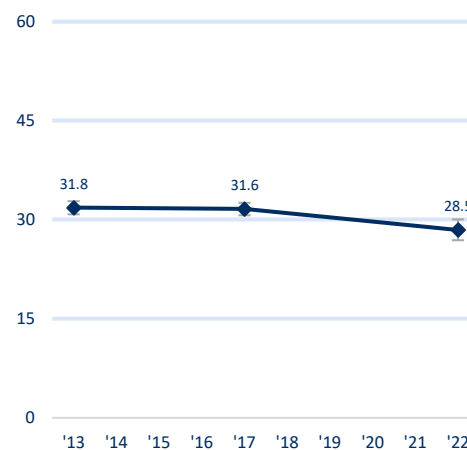


#### Campus Environment: Seniors

##### Quality of Interactions



##### Supportive Environment

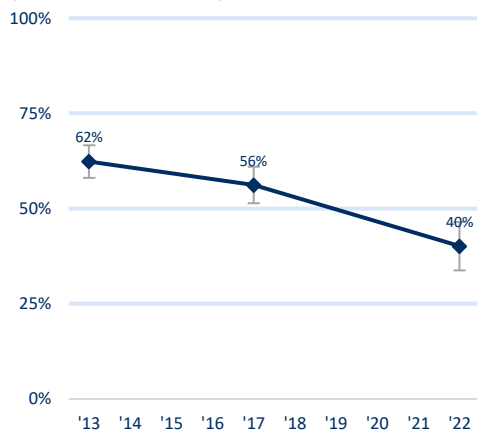


Due to their positive associations with student learning and retention, certain undergraduate opportunities are designated "high-impact." The figures below display first-year students' participation, or intent to participate, in High-Impact Practices (HIPs) by year. See page 13 for detailed statistics.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

#### High-Impact Practices: First-year students

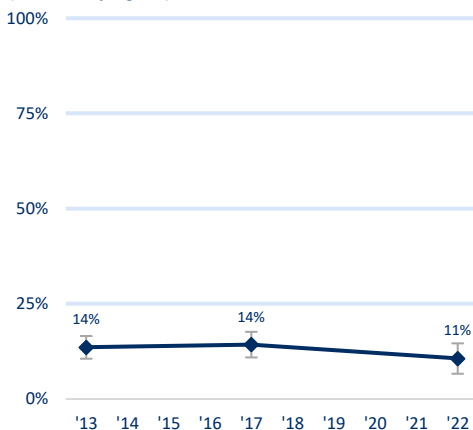
##### Service-Learning

(Some, most, or all courses)



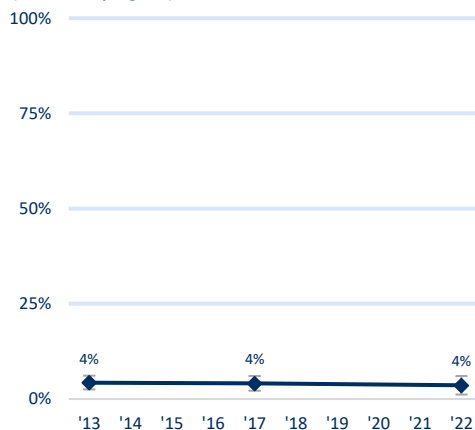
##### Learning Community

(Done or in progress)



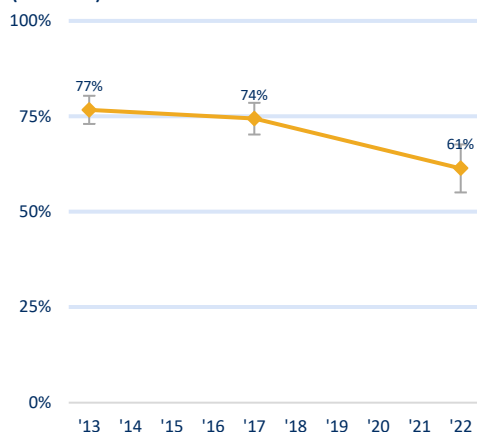
##### Research with Faculty

(Done or in progress)



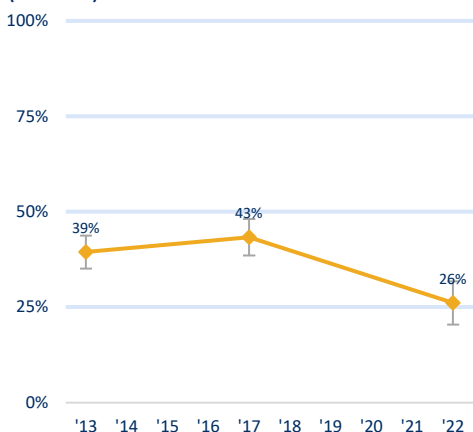
##### Internship/Field Experience

(Plan to do)



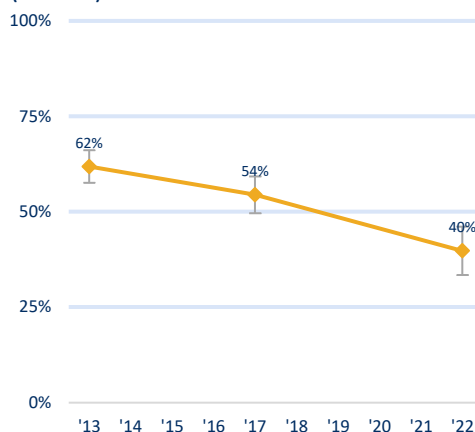
##### Study Abroad

(Plan to do)



##### Culminating Senior Experience

(Plan to do)



#### 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.

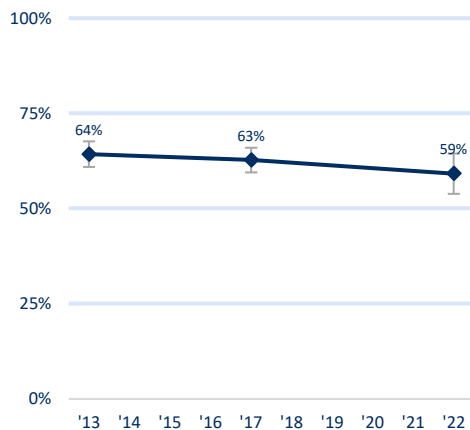


Due to their positive associations with student learning and retention, certain undergraduate opportunities are designated "high-impact." Participation in High-Impact Practices (HIPs) by year is displayed in the figures below. See page 13 for detailed statistics. For more information, refer to your *High-Impact Practices* report.

#### High-Impact Practices: Seniors

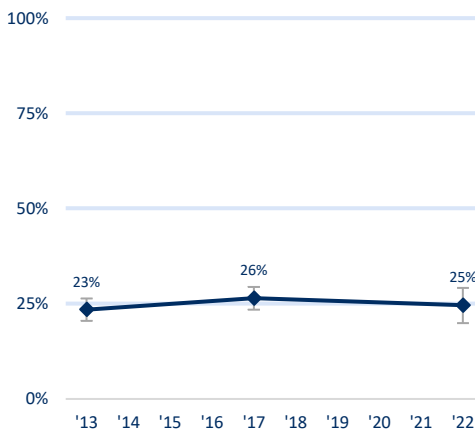
##### Service-Learning

(Some, most, or all courses)



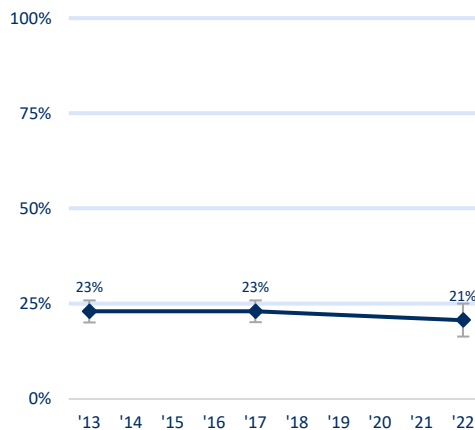
##### Learning Community

(Done or in progress)



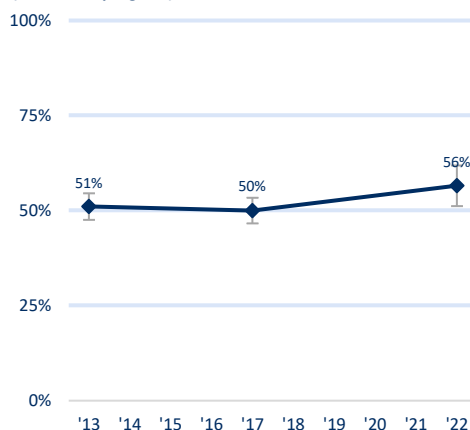
##### Research with Faculty

(Done or in progress)



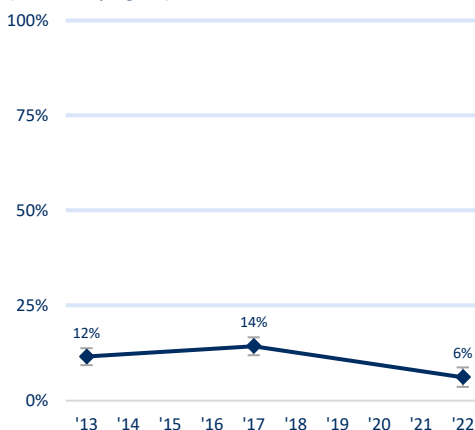
##### Internship/Field Experience

(Done or in progress)



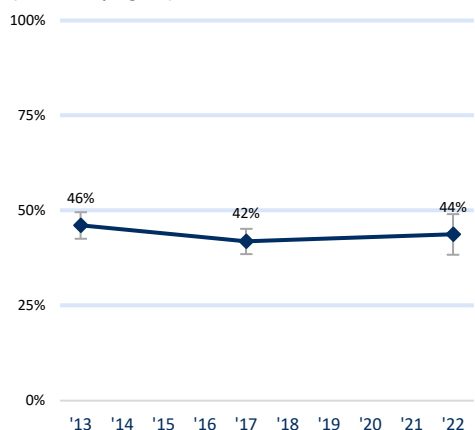
##### Study Abroad

(Done or in progress)



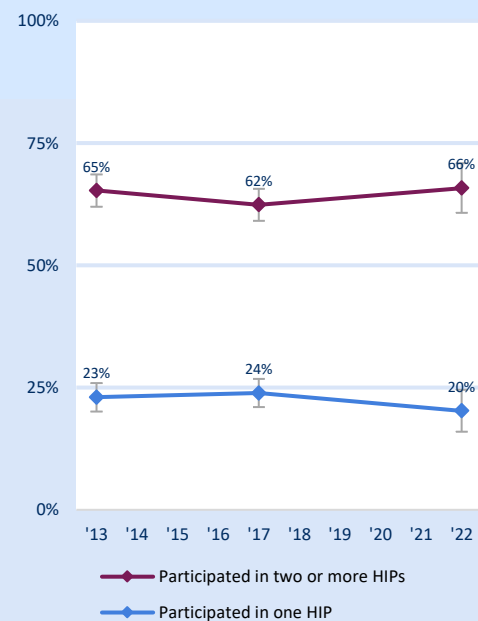
##### Culminating Senior Experience

(Done or in progress)



#### Overall senior HIP participation

The figure below displays the percentages of seniors who participated in one, and two or more, high-impact practices. The figure includes all six HIPs.



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.

# NSSE 2022 Multi-Year Report

## Detailed Statistics: Engagement Indicators and Additional Items

### Western Michigan University

		First-year students										Seniors									
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22
<i>Academic Challenge</i>																					
<b>Higher-Order Learning</b>	<i>Mean</i>	37.6			37.2				35.6			39.8				38.2					37.5
	<i>n</i>	540			496				257			816				958					353
	<i>SD</i>	13.9			13.0				13.5			14.5				13.6					14.4
	<i>SE</i>	.60			.59				.84			.51				.44					.77
	<i>CI upper bound</i>	38.8			38.4				37.3			40.8				39.1					39.0
	<i>CI lower bound</i>	36.5			36.1				34.0			38.8				37.3					36.0
<b>Reflective &amp; Integrative Learning</b>	<i>Mean</i>	36.5			34.8				34.2			38.2				38.6					37.2
	<i>n</i>	571			521				283			860				996					392
	<i>SD</i>	12.4			11.8				11.9			12.8				12.0					13.5
	<i>SE</i>	.52			.52				.71			.44				.38					.68
	<i>CI upper bound</i>	37.5			35.8				35.6			39.1				39.3					38.6
	<i>CI lower bound</i>	35.4			33.8				32.8			37.3				37.8					35.9
<b>Learning Strategies</b>	<i>Mean</i>	39.1			37.8				34.8			39.2				37.5					36.4
	<i>n</i>	495			426				231			778				846					332
	<i>SD</i>	14.1			13.3				14.2			14.5				14.2					14.9
	<i>SE</i>	.63			.65				.94			.52				.49					.82
	<i>CI upper bound</i>	40.3			39.0				36.6			40.2				38.5					38.0
	<i>CI lower bound</i>	37.9			36.5				33.0			38.1				36.5					34.8
<b>Quantitative Reasoning</b>	<i>Mean</i>	26.9			26.3				26.7			29.1				29.1					29.5
	<i>n</i>	550			487				238			838				952					335
	<i>SD</i>	17.2			15.2				15.5			17.6				15.8					16.6
	<i>SE</i>	.73			.69				1.01			.61				.51					.91
	<i>CI upper bound</i>	28.4			27.6				28.7			30.3				30.1					31.2
	<i>CI lower bound</i>	25.5			24.9				24.8			27.9				28.1					27.7
<i>Academic Challenge (additional items)</i>																					
<b>Preparing for Class</b> (hours/week)	<i>Mean</i>	15.4			15.5				14.6			15.4				14.6					15.8
	<i>n</i>	467			376				229			743				802					323
	<i>SD</i>	8.2			8.3				7.9			8.8				8.9					9.1
	<i>SE</i>	.38			.43				.52			.32				.31					.51
	<i>CI upper bound</i>	16.1			16.4				15.6			16.1				15.3					16.8
	<i>CI lower bound</i>	14.6			14.7				13.6			14.8				14.0					14.8
<b>Course Reading</b> Est. hrs per wk calculated from two items. Item wording changed in 2014; comparability with '13 is limited.	<i>Mean</i>	6.9			6.2				5.3			6.5				6.5					6.7
	<i>n</i>	461			371				227			743				798					315
	<i>SD</i>	5.9			5.4				4.9			5.3				6.1					5.8
	<i>SE</i>	.28			.28				.33			.19				.22					.33
	<i>CI upper bound</i>	7.5			6.7				5.9			6.8				6.9					7.3
	<i>CI lower bound</i>	6.4			5.6				4.6			6.1				6.1					6.0

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).

# NSSE 2022 Multi-Year Report

## Detailed Statistics: Engagement Indicators and Additional Items

### Western Michigan University

First-year students												Seniors										
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22
Academic Challenge (additional items, continued)																						
Assigned Writing	Mean	44.5				48.5					49.8		77.5				76.9				83.7	
	n	471				431					234		721				850				331	
	SD	52.2				59.5					89.4		76.2				85.4				112.6	
	SE	2.41				2.86					5.84		2.84				2.93				6.19	
	CI upper bound	49.2				54.1					61.3		83.0				82.6				95.8	
	CI lower bound	39.8				42.9					38.4		71.9				71.1				71.5	
Course Challenge	Mean	5.6				5.3					5.2		5.7				5.4				5.3	
	n	504				426					231		795				845				333	
	SD	1.1				1.2					1.2		1.2				1.3				1.4	
	SE	.05				.06					.08		.04				.04				.08	
	CI upper bound	5.7				5.4					5.4		5.7				5.5				5.5	
	CI lower bound	5.5				5.2					5.1		5.6				5.3				5.2	
Academic Emphasis	Mean	3.4				3.1					2.9		3.2				3.1				3.1	
	n	466				386					228		746				811				330	
	SD	0.7				0.7					0.7		0.7				0.8				0.8	
	SE	.03				.04					.05		.03				.03				.04	
	CI upper bound	3.4				3.2					3.0		3.2				3.1				3.2	
	CI lower bound	3.3				3.0					2.8		3.1				3.0				3.0	
Learning with Peers																						
Collaborative Learning	Mean	32.1				32.5					27.4		33.3				35.4				32.9	
	n	586				542					321		867				1,023				432	
	SD	13.7				14.3					13.7		13.6				14.2				15.9	
	SE	.57				.61					.77		.46				.45				.77	
	CI upper bound	33.3				33.7					28.9		34.3				36.3				34.4	
	CI lower bound	31.0				31.3					25.9		32.4				34.6				31.4	
Discussions with Diverse Others	Mean	42.5				39.3					38.6		41.8				41.3				37.5	
	n	503				424					234		787				849				330	
	SD	15.0				14.9					15.6		15.3				14.7				17.0	
	SE	.67				.72					1.02		.54				.50				.93	
	CI upper bound	43.8				40.7					40.6		42.9				42.3				39.3	
	CI lower bound	41.2				37.8					36.6		40.8				40.4				35.7	

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).

# NSSE 2022 Multi-Year Report

## Detailed Statistics: Engagement Indicators and Additional Items

### Western Michigan University

First-year students												Seniors											
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22			'13	'14	'15	'16	'17	'18	'19	'20	'21	'22
Experiences with Faculty																							
Student-Faculty Interaction	Mean	21.8				23.8					19.5		23.1					25.0					21.2
	n	556				498					270		838					981					371
	SD	15.2				14.5					14.6		15.5					16.0					14.9
	SE	.64				.65					.89		.54					.51					.77
	CI upper bound	23.1				25.1					21.2		24.2					26.0					22.8
	CI lower bound	20.6				22.6					17.8		22.1					24.0					19.7
Effective Teaching Practices	Mean	38.8				36.9					35.9		39.4					38.4					35.6
	n	555				497					254		844					968					348
	SD	13.0				12.8					12.6		13.8					13.1					14.4
	SE	.55				.57					.79		.48					.42					.77
	CI upper bound	39.9				38.0					37.4		40.3					39.2					37.1
	CI lower bound	37.7				35.8					34.3		38.5					37.6					34.0
Campus Environment																							
Quality of Interactions	Mean	43.2				42.2					42.0		42.3					42.3					39.0
	n	479				404					214		747					786					304
	SD	11.0				11.6					11.4		11.5					10.8					12.8
	SE	.50				.58					.78		.42					.38					.74
	CI upper bound	44.2				43.4					43.5		43.1					43.0					40.4
	CI lower bound	42.2				41.1					40.5		41.4					41.5					37.5
Supportive Environment	Mean	38.8				36.7					33.6		31.8					31.6					28.5
	n	461				375					228		736					806					327
	SD	14.3				13.2					13.8		14.0					13.8					14.4
	SE	.67				.68					.91		.52					.49					.79
	CI upper bound	40.1				38.1					35.4		32.8					32.6					30.0
	CI lower bound	37.5				35.4					31.8		30.8					30.7					26.9

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).

# NSSE 2022 Multi-Year Report

## Detailed Statistics: High-Impact Practices

### Western Michigan University

First-year students											Seniors										
		'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22
Service-Learning <sup>a</sup>	%	62				56					40	64				63					59
	<i>n</i>	497				412					230	789				841					332
	<i>SE</i>	2.2				2.4					3.2	1.7				1.7					2.7
	<i>CI upper bound (%)</i>	67				61					47	68				66					64
	<i>CI lower bound (%)</i>	58				51					34	61				59					54
Learning Community <sup>a</sup>	%	14				14					11	23				26					25
	<i>n</i>	498				414					231	792				841					333
	<i>SE</i>	1.5				1.7					2.0	1.5				1.5					2.4
	<i>CI upper bound (%)</i>	17				18					15	26				29					29
	<i>CI lower bound (%)</i>	11				11					7	20				23					20
Research with Faculty <sup>a</sup>	%	4				4					4	23				23					21
	<i>n</i>	495				415					231	788				843					334
	<i>SE</i>	0.9				1.0					1.2	1.5				1.5					2.2
	<i>CI upper bound (%)</i>	6				6					6	26				26					25
	<i>CI lower bound (%)</i>	3				2					1	20				20					16
Internship or Field Experience <sup>b</sup> (First-year results: Plan to do)	%	77				74					61	51				50					56
	<i>n</i>	502				425					232	793				846					331
	<i>SE</i>	1.9				2.1					3.2	1.8				1.7					2.7
	<i>CI upper bound (%)</i>	80				79					68	54				53					62
	<i>CI lower bound (%)</i>	73				70					55	48				47					51
Study Abroad <sup>b</sup> (First-year results: Plan to do)	%	39				43					26	12				14					6
	<i>n</i>	499				413					232	790				842					334
	<i>SE</i>	2.2				2.4					2.9	1.1				1.2					1.3
	<i>CI upper bound (%)</i>	44				48					32	14				17					9
	<i>CI lower bound (%)</i>	35				39					20	9				12					4
Culminating Senior Experience <sup>b</sup> (First-year results: Plan to do)	%	62				54					40	46				42					44
	<i>n</i>	497				414					231	790				844					331
	<i>SE</i>	2.2				2.4					3.2	1.8				1.7					2.7
	<i>CI upper bound (%)</i>	66				59					46	50				45					49
	<i>CI lower bound (%)</i>	58				50					33	43				39					38
Overall HIP Participation <sup>c</sup>																					
Participated in one HIP	%	58				52					38	23				24					20
	<i>n</i>	504				417					232	796				849					335
	<i>SE</i>	2.2				2.4					3.2	1.5				1.5					2.2
	<i>CI upper bound (%)</i>	62				56					44	26				27					25
	<i>CI lower bound (%)</i>	54				47					32	20				21					16
Participated in two or more HIPs	%	10				10					7	65				62					66
	<i>n</i>	504				417					232	796				849					335
	<i>SE</i>	1.4				1.5					1.7	1.7				1.7					2.6
	<i>CI upper bound (%)</i>	13				13					11	69				66					71
	<i>CI lower bound (%)</i>	8				7					4	62				59					61

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 ( $p \pm 1.96 * SE$ ).

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.