

Western Michigan University



#### **About This Report**

### **About Your Engagement Indicators Report**

Engagement Indicators (EIs) provide a useful summary of the detailed information contained in your students' NSSE responses. By combining responses to related NSSE questions, each EI offers valuable information about a distinct aspect of student engagement. Ten indicators, based on three to eight survey questions each (a total of 47 survey questions), are organized into four broad themes as shown at right.

Theme	Engagement Indicator
Academic Challenge	Higher-Order Learning Reflective & Integrative Learning
	Learning Strategies  Quantitative Reasoning
Learning with Peers	Collaborative Learning Discussions with Diverse Others
Experiences with Faculty	Student-Faculty Interaction Effective Teaching Practices
Campus Environment	Quality of Interactions Supportive Environment

#### **Report Sections**

Overview (p. 3)

Displays how average EI scores for your students compare with those of students at your comparison group institutions.

Theme Reports (pp. 4-13)

Detailed views of EI scores within the four themes for your students and those at comparison group institutions. Three views offer varied insights into your EI scores:

#### Mean Comparisons

Straightforward comparisons of average scores between your students and those at comparison group institutions, with tests of significance and effect sizes (see below).

#### **Score Distributions**

Box-and-whisker charts show the variation in scores within your institution and comparison groups.

#### Performance on Indicator Items

Responses to each item in a given EI are summarized for your institution and comparison groups.

Comparisons with High-Performing Institutions (p. 15) Comparisons of your students' average scores on each EI with those of students at institutions whose average scores were in the top 50% and top 10% of 2016 and 2017 participating institutions.

Detailed Statistics (pp. 16-19)

Detailed information about EI score means, distributions, and tests of statistical significance.

#### **Interpreting Comparisons**

Mean comparisons report both statistical significance and effect size. Effect size indicates the practical importance of an observed difference. For EI comparisons, NSSE research has concluded that an effect size of about .1 may be considered small, .3 medium, and .5 large (Rocconi & Gonyea, 2015). Comparisons with an effect size of at least .3 in magnitude (before rounding) are highlighted in the Overview (p. 3).

Els vary more among students within an institution than between institutions, like many experiences and outcomes in higher education. As a result, focusing attention on average scores alone amounts to examining the tip of the iceberg. It's equally important to understand how student engagement varies within your institution. Score distributions indicate how El scores vary among your students and those in your comparison groups. The Report Builder—Institution Version and your *Major Field Report* (both to be released in the fall) offer valuable perspectives on internal variation and help you investigate your students' engagement in depth.

#### **How Engagement Indicators are Computed**

Each EI is scored on a 60-point scale. To produce an indicator score, the response set for each item is converted to a 60-point scale (e.g., Never = 0; Sometimes = 20; Often = 40; Very often = 60), and the rescaled items are averaged. Thus a score of zero means a student responded at the bottom of the scale for every item in the EI, while a score of 60 indicates responses at the top of the scale on every item.

For more information on EIs and their psychometric properties, refer to the NSSE website: nsse.indiana.edu

Rocconi, L., & Gonyea, R. M. (2015, May). Contextualizing student engagement effect sizes: An empirical analysis. Paper presented at the Association for Institutional Research Annual Forum. Denver. CO.



# Overview Western Michigan University

### **Engagement Indicators: Overview**

Engagement Indicators are summary measures based on sets of NSSE questions examining key dimensions of student engagement. The ten indicators are organized within four broad themes: Academic Challenge, Learning with Peers, Experiences with Faculty, and Campus Environment. The tables below compare average scores for your students with those in your comparison groups.

#### Use the following key:

- $\blacktriangle$  Your students' average was significantly higher (p < .05) with an effect size at least .3 in magnitude.
- $\triangle$  Your students' average was significantly higher (p < .05) with an effect size less than .3 in magnitude.
- -- No significant difference.
- $\nabla$  Your students' average was significantly lower (p < .05) with an effect size less than .3 in magnitude.
- **Your students' average** was significantly lower (p < .05) with an effect size at least .3 in magnitude.

rst-Year Stud	lents	Your first-year students compared with	Your first-year students compared with	Your first-year students compared with
Theme	Engagement Indicator	Carnegie Peers	Carnegie Class	NSSE 2016 & 2017
	Higher-Order Learning			
Academic	Reflective & Integrative Learning			
Challenge	Learning Strategies			
	Quantitative Reasoning		$\nabla$	
Learning with	Collaborative Learning			
Peers	Discussions with Diverse Others			
Experiences	Student-Faculty Interaction	Δ	Δ	Δ
with Faculty	Effective Teaching Practices			$\nabla$
Campus	Quality of Interactions			
Environment	Supportive Environment			

#### Seniors

Your seniors compared with Your seniors compared with Your seniors compared with

Theme	Engagement Indicator	Carnegie Peers	Carnegie Class	NSSE 2016 & 2017
	Higher-Order Learning	$\nabla$	$\nabla$	$\nabla$
Academic	Reflective & Integrative Learning	Δ	Δ	
Challenge	Learning Strategies			$\nabla$
	Quantitative Reasoning		$\nabla$	
Learning with	Collaborative Learning	Δ	Δ	Δ
Peers	Discussions with Diverse Others		Δ	
Experiences	Student-Faculty Interaction			Δ
with Faculty	Effective Teaching Practices			$\nabla$
Campus	Quality of Interactions		Δ	
Environment	Supportive Environment			



# Academic Challenge Western Michigan University

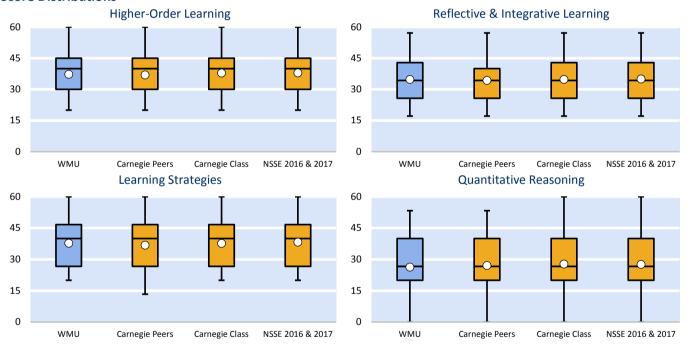
#### **Academic Challenge: First-year students**

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning, Reflective & Integrative Learning, Learning Strategies,* and *Quantitative Reasoning*. Below and on the next page are three views of your results alongside those of your comparison groups.

Mean Comparisons			Your	first-year studen	ts compared v	vith	
	WMU	Carne	gie Peers Effect	Carne	gie Class Effect	NSSE 20	016 & 2017 Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Higher-Order Learning	37.2	37.0	.02	37.9	05	37.9	05
Reflective & Integrative Learning	34.8	34.3	.04	34.8	.00	35.0	02
Learning Strategies	37.8	36.8	.07	37.7	.00	38.3	04
Quantitative Reasoning	26.3	27.1	05	27.8 *	10	27.6	09

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.



## **Academic Challenge**

### **Western Michigan University**

### **Academic Challenge: First-year students (continued)**

#### Performance<sup>a</sup> on Indicator Items

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage point difference between your FY students and			
Higher-Order Learning	14/8 41 1	Carnegie Peers	Carnegie Class	NSSE 2016 & 2017	
Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized	WMU	Carriegie Feers	Carriegie Class	2017	
4b. Applying facts, theories, or methods to practical problems or new situations	% 69	-1	-4	-3	
40. Applying facts, arcones, or metrious to practical problems or new situations	09	1 -		ļ <sup>3</sup>	
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	66	-2	-5	-4	
4d. Evaluating a point of view, decision, or information source	66	+0	-2	-3	
4e. Forming a new idea or understanding from various pieces of information	67	+1	-0	-1	
Reflective & Integrative Learning					
Percentage of students who responded that they "Very often" or "Often"					
2a. Combined ideas from different courses when completing assignments	48	-3	-4	-4	
2b. Connected your learning to societal problems or issues	48	<b>∮</b> -0	-2	-3	
2c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	49	-0	-1	-1	
2d. Examined the strengths and weaknesses of your own views on a topic or issue	64	+2	+2	+1	
Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	72	+3	+3	+3	
2f. Learned something that changed the way you understand an issue or concept	70	+5	+4	+4	
2g. Connected ideas from your courses to your prior experiences and knowledge	77	+3	+1	+0	
Learning Strategies					
Percentage of students who responded that they "Very often" or "Often"					
9a. Identified key information from reading assignments	77	+4	+1	-0	
9b. Reviewed your notes after class	64	+1	+0	-1	
9c. Summarized what you learned in class or from course materials	63	+4	+1	+0	
Quantitative Reasoning					
Percentage of students who responded that they "Very often" or "Often"					
6a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	49	-3	-5	-4	
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	36	-1	-3	-3	
6c. Evaluated what others have concluded from numerical information	36	-1	-3	-3	

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



# Academic Challenge Western Michigan University

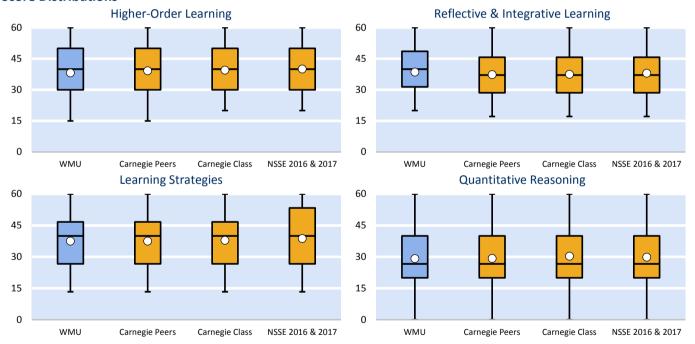
### **Academic Challenge: Seniors**

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning, Reflective & Integrative Learning, Learning Strategies,* and *Quantitative Reasoning*. Below and on the next page are three views of your results alongside those of your comparison groups.

Mean Comparisons			Your seniors compared with	
	WMU	Carnegie Peers  Effect	Carnegie Class Effect	NSSE 2016 & 2017 Effect
Engagement Indicator	Mean	Mean size	Mean size	Mean size
Higher-Order Learning	38.2	39.2 *07	39.5 **10	40.1 ***13
Reflective & Integrative Learning	38.6	37.3 ** .10	37.5 ** .09	38.0 .04
Learning Strategies	37.5	37.5 .00	37.903	38.7 *09
Quantitative Reasoning	29.1	29.201	30.3 *07	29.904

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

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# Academic Challenge Western Michigan University

# **Academic Challenge: Seniors (continued)**

#### Performance<sup>a</sup> on Indicator Items

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percentage poi	nt difference between yo	our seniors and
Higher-Order Learning	WMU	Carnegie Peers	Carnegie Class	NSSE 2016 & 2017
Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized		Carriegie Feers	Carriegie Class	2017
4b. Applying facts, theories, or methods to practical problems or new situations	% 75	-1	-4	-3
40. Applying facts, theories, of methods to practical problems of new situations	/5		ų	ų ·5
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	71	-3	-4	-4
4d. Evaluating a point of view, decision, or information source	65	-2	-2	-5
4e. Forming a new idea or understanding from various pieces of information	68	+0	-1	-3
Reflective & Integrative Learning				
Percentage of students who responded that they "Very often" or "Often"				
2a. Combined ideas from different courses when completing assignments	70	+0	-0	+1
2b. Connected your learning to societal problems or issues	62	+2	+2	+0
2c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	53	+4	+4	-0
2d. Examined the strengths and weaknesses of your own views on a topic or issue	68	+3	+3	+2
2e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	74	+4	+4	+3
2f. Learned something that changed the way you understand an issue or concept	73	+4	+3	+2
2g. Connected ideas from your courses to your prior experiences and knowledge	84	+2	+1	+0
Learning Strategies				
Percentage of students who responded that they "Very often" or "Often"				
9a. Identified key information from reading assignments	78	+2	+1	-1
9b. Reviewed your notes after class	58	-1	-2	-3
9c. Summarized what you learned in class or from course materials	62	-0	+0	-2
Quantitative Reasoning				
Percentage of students who responded that they "Very often" or "Often"				
6a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	54	-0	-3	-1
6b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	41	-1	-4	-3
6c. Evaluated what others have concluded from numerical information	41	-1	-4	-3

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# Learning with Peers Western Michigan University

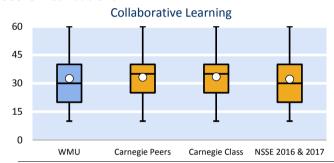
### **Learning with Peers: First-year students**

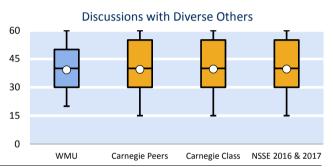
Collaborating with others in mastering difficult material and developing interpersonal and social competence prepare students to deal with complex, unscripted problems they will encounter during and after college. Two Engagement Indicators make up this theme: *Collaborative Learning* and *Discussions with Diverse Others*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons			Your	first-year stude	nts compared v	vith	
	WMU	Carne	gie Peers Effect	Carne	egie Class Effect	NSSE 20	016 & 2017 Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Collaborative Learning	32.5	33.2	05	33.5	07	32.2	.03
Discussions with Diverse Others	39.3	39.4	01	39.7	03	39.7	03

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

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#### **Performance**<sup>a</sup> on Indicator Items

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		Percentage point difference between you			· FY students and		
Collaborative Learning	WMU	Carnegi	e Peers	Carneg	gie Class	NSSE 2	2016 & 17
Percentage of students who responded that they "Very often" or "Often"	%						
1e. Asked another student to help you understand course material	58	+1		+2	1	+6	
1f. Explained course material to one or more students	56		-7		-5		-2
1g. Prepared for exams by discussing or working through course material with other students	50		-1		-3	+0	
1h. Worked with other students on course projects or assignments	52		-2	I	-3	I	-2
Discussions with Diverse Others							
Percentage of students who responded that they "Very often" or "Often" had discussions with							
8a. People from a race or ethnicity other than your own	68	+1			-2		-3
8b. People from an economic background other than your own	71	+1			-1	1	-0
8c. People with religious beliefs other than your own	66		-1		-1	1	-1
8d. People with political views other than your own	69		-1	+1	j	+2	

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# Learning with Peers Western Michigan University

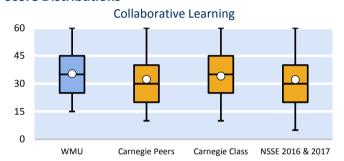
### **Learning with Peers: Seniors**

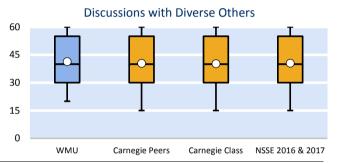
Collaborating with others in mastering difficult material and developing interpersonal and social competence prepare students to deal with complex, unscripted problems they will encounter during and after college. Two Engagement Indicators make up this theme: *Collaborative Learning* and *Discussions with Diverse Others*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons			Your seniors compared with	
	WMU	Carnegie Peers Effect	Carnegie Class Effect	NSSE 2016 & 2017 Effect
Engagement Indicator	Mean	Mean size	Mean size	Mean size
Collaborative Learning	35.4	32.4 *** .21	34.1 ** .09	32.3 *** .21
Discussions with Diverse Others	41.3	40.4 .06	40.2 * .07	40.5 .05

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

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		Percentage point difference between your seniors and				
Collaborative Learning	WMU	Carnegie Peers	Carnegie Class	NSSE 2016 & 2017		
Percentage of students who responded that they "Very often" or "Often"	%					
1e. Asked another student to help you understand course material	50	+8	+3	+8		
1f. Explained course material to one or more students	68	+7	+5	+10		
1g. Prepared for exams by discussing or working through course material with other students	52	+6	+2	+5		
1h. Worked with other students on course projects or assignments	70	+8	+4	+7		
Discussions with Diverse Others						
Percentage of students who responded that they "Very often" or "Often" had discussions with						
8a. People from a race or ethnicity other than your own	72	+3	+2	+1		
8b. People from an economic background other than your own	77	+4	+4	+4		
8c. People with religious beliefs other than your own	70	+3	+3	+2		
8d. People with political views other than your own	71	+0	+2	+3		

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# Experiences with Faculty Western Michigan University

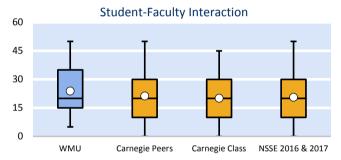
### **Experiences with Faculty: First-year students**

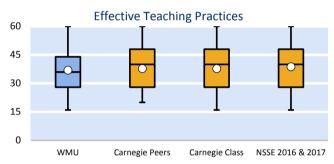
Students learn firsthand how experts think about and solve problems by interacting with faculty members inside and outside of instructional settings. As a result, faculty become role models, mentors, and guides for lifelong learning. In addition, effective teaching requires that faculty deliver course material and provide feedback in student-centered ways. Two Engagement Indicators investigate this theme: *Student-Faculty Interaction* and *Effective Teaching Practices*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons		Your	first-year students compared v	vith
	WMU	Carnegie Peers  Effect	Carnegie Class Effect	NSSE 2016 & 2017 Effect
Engagement Indicator	Mean	Mean size	Mean size	Mean size
Student-Faculty Interaction	23.8	21.3 *** .18	20.1 *** .27	20.6 *** .22
Effective Teaching Practices	36.9	37.706	37.807	38.7 **14

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .01 (2-tailed).

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		Percentage point	difference between you	r FY students and
Student-Faculty Interaction	WMU	Carnegie Peers	Carnegie Class	NSSE 2016 & 2017
Percentage of students who responded that they "Very often" or "Often"	%			
3a. Talked about career plans with a faculty member	45	+7	+12	+11
3b. Worked w/faculty on activities other than coursework (committees, student groups, etc.)	25	+4	+5	+5
3c. Discussed course topics, ideas, or concepts with a faculty member outside of class	27	+2	+3	+2
3d. Discussed your academic performance with a faculty member	36	+7	+9	+7
Effective Teaching Practices		·	•	
Percentage responding "Very much" or "Quite a bit" about how much instructors have				
5a. Clearly explained course goals and requirements	79	+2	+2	+1
5b. Taught course sessions in an organized way	74	-2	-2	-2
5c. Used examples or illustrations to explain difficult points	71	-4	-3	-4
5d. Provided feedback on a draft or work in progress	59	-2	-1	-5
5e. Provided prompt and detailed feedback on tests or completed assignments	56	-3	-1	-5

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# Experiences with Faculty Western Michigan University

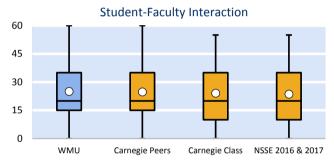
### **Experiences with Faculty: Seniors**

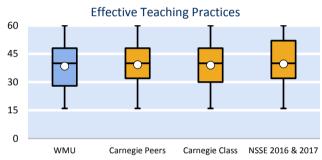
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	WMU	Carne	gie Peers Effect	Carne	gie Class Effect	NSSE 201	. <b>6 &amp; 2017</b> Effect
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size
Student-Faculty Interaction	25.0	24.7	.02	24.0	.06	23.6 **	.09
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		Percentage po	int difference between y	our seniors and
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Percentage of students who responded that they "Very often" or "Often"	%			
3a. Talked about career plans with a faculty member	46	-0	+3	+3
3b. Worked w/faculty on activities other than coursework (committees, student groups, etc.)	31	+2	+3	+4
3c. Discussed course topics, ideas, or concepts with a faculty member outside of class	31	-3	-2	-1
3d. Discussed your academic performance with a faculty member	34	( -1	+2	+1
Effective Teaching Practices		·		-
Percentage responding "Very much" or "Quite a bit" about how much instructors have				
5a. Clearly explained course goals and requirements	81	+1	+2	+1
5b. Taught course sessions in an organized way	77	-0	-0	-1
5c. Used examples or illustrations to explain difficult points	74	-3	-3	-3
5d. Provided feedback on a draft or work in progress	58	-2	+1	-2
5e. Provided prompt and detailed feedback on tests or completed assignments	60	-2	-2	-4

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



# Campus Environment Western Michigan University

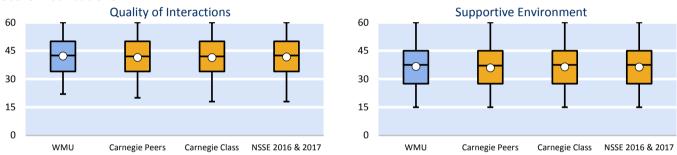
### **Campus Environment: First-year students**

Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons			Your	first-year stude	nts compared v	vith	
	WMU	Carne	gie Peers	Carne	gie Class Effect	NSSE 20	016 & 2017
Engagement Indicator	Mean	Mean	Effect size	Mean	size	Mean	Effect size
Quality of Interactions	42.2	41.4	.07	41.3	.07	41.7	.04
Supportive Environment	36.7	35.9	.06	36.4	.02	36.3	.03

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### Performance<sup>a</sup> on Indicator Items

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Percei	ntage point (	difference b	etween you	r FY student	s and
Overliev of Internations				_		NSSE 2	
Quality of Interactions	WMU	Carnegi	e Peers	Carneg	ie Class	20	17
Percentage rating their interactions a 6 or 7 (on a scale from 1="Poor" to 7="Excellent") with	%						
13a. Students	51	+2		l	-1		-1
13b. Academic advisors	54	+5	l	+6		+4	
13c. Faculty	45		-1	l	-2	, i	-4
13d. Student services staff (career services, student activities, housing, etc.)	41	(	-2	I	-2	(	-3
13e. Other administrative staff and offices (registrar, financial aid, etc.)	42	+1		+2		(	-0
Supportive Environment							
Percentage responding "Very much" or "Quite a bit" about how much the institution emphasized							
14b. Providing support to help students succeed academically	76	+3	)	+0	)	+0	
14c. Using learning support services (tutoring services, writing center, etc.)	74	+1		l	-2	Ų	-2
14d. Encouraging contact among students from diff. backgrounds (soc., racial/eth., relig., etc.)	64	+5		+3	l	+2	
14e. Providing opportunities to be involved socially	73	+2		+2		+2	
14f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	72	+0			-0	+2	
14g. Helping you manage your non-academic responsibilities (work, family, etc.)	47	+4		+5	l	+4	
14h. Attending campus activities and events (performing arts, athletic events, etc.)	69	+2	1	+3	l	+4	
14i. Attending events that address important social, economic, or political issues	53	+3		+2		+1	

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.



# Campus Environment Western Michigan University

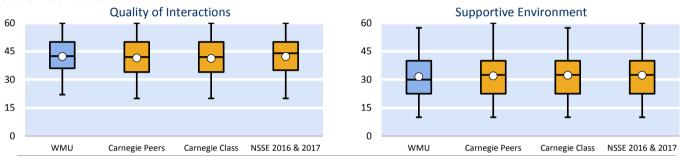
#### **Campus Environment: Seniors**

Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment*. Below are three views of your results alongside those of your comparison groups.

Mean Comparisons				Your seniors com	pared with			
	WMU	Carne	gie Peers Effect	Carneg	ie Class Effect	NSSE 20	<b>16 &amp; 2017</b> <i>Effect</i>	
Engagement Indicator	Mean	Mean	size	Mean	size	Mean	size	
Quality of Interactions	42.3	41.5	.06	41.2 **	.08	42.3	.00	
Supportive Environment	31.6	32.0	03	32.3	05	32.3	05	

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and p before rounding; \*p < .05, \*\*p < .01, \*\*\*p < .001 (2-tailed).

#### **Score Distributions**



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

#### Performance<sup>a</sup> on Indicator Items

The table below displays how your students responded to each EI item, and the difference, in percentage points, between your students and those of your comparison group. Blue bars indicate how much higher your institution's percentage is from that of the comparison group. Dark red bars indicate how much lower your institution's percentage is from that of the comparison group.

		Perce	ntage point dij	fference	e between yo	ur seniors	and
Quality of Interactions	WMU	Carnegie	Peers	Carneg	ie Class		2016 & )17
Percentage rating their interactions a 6 or 7 (on a scale from 1="Poor" to 7="Excellent") with	%						
13a. Students	56	(	-1		-1		-2
13b. Academic advisors	52	+3		+5	I	+0	)
13c. Faculty	55	(	-1	+1			-2
13d. Student services staff (career services, student activities, housing, etc.)	41	+2		+3	l		-0
13e. Other administrative staff and offices (registrar, financial aid, etc.)	40	+2		+2			-2
Supportive Environment							
Percentage responding "Very much" or "Quite a bit" about how much the institution emphasized							
14b. Providing support to help students succeed academically	69	Į (	-0	- 1	-0		-2
14c. Using learning support services (tutoring services, writing center, etc.)	60		-4		-5		-6
14d. Encouraging contact among students from diff. backgrounds (soc., racial/eth., relig., etc.)	52	+0		+0	J		-3
14e. Providing opportunities to be involved socially	63		-1		-2		-1
14f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	60	(	-1		-2		-1
14g. Helping you manage your non-academic responsibilities (work, family, etc.)	29	(	-1		-1		-2
14h. Attending campus activities and events (performing arts, athletic events, etc.)	55	(	-1	I	-1	+2	)
14i. Attending events that address important social, economic, or political issues	44	+3		+1		+1	)

a. Percentage point difference = Institution percentage - Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.

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# Comparisons with High-Performing Institutions Western Michigan University

#### Comparisons with Top 50% and Top 10% Institutions

While NSSE's policy is not to rank institutions (see nsse.indiana.edu/html/position\_policies.cfm), the results below are designed to compare the engagement of your students with those attending two groups of institutions identified by NSSE<sup>a</sup> for their high average levels of student engagement:

- (a) institutions with average scores placing them in the top 50% of all 2016 and 2017 NSSE institutions, and
- (b) institutions with average scores placing them in the top 10% of all 2016 and 2017 NSSE institutions.

While the average scores for most institutions are below the mean for the top 50% or top 10%, your institution may show areas of distinction where your average student was as engaged as (or even more engaged than) the typical student at high-performing institutions. A check mark  $(\checkmark)$  signifies those comparisons where your average score was at least comparable to that of the high-performing group. However, the presence of a check mark does not necessarily mean that your institution was a member of that group.

It should be noted that most of the variability in student engagement is within, not between, institutions. Even "high-performing" institutions have students with engagement levels below the average for all institutions.

First-Year	Students			Your first-year stude	nts compared with	า	
		WMU	NSSE T	Гор 50%	NSSE T	op 10%	
Theme	Engagement Indicator	Mean	Mean	Effect size ✓	Mean	Effect size	✓
	Higher-Order Learning	37.2	39.2 **	15	41.2 ***	30	
Academic	Reflective and Integrative Learning	34.8	36.6 ***	15	38.3 ***	28	
Challenge	Learning Strategies	37.8	39.8 **	15	41.9 ***	30	
	Quantitative Reasoning	26.3	28.8 ***	17	30.4 ***	27	
Learning	Collaborative Learning	32.5	35.2 ***	19	37.1 ***	34	
with Peers	Discussions with Diverse Others	39.3	41.7 ***	17	43.8 ***	31	
Experiences	Student-Faculty Interaction	23.8	23.8	.00 ✓	27.2 ***	22	
with Faculty	Effective Teaching Practices	36.9	40.7 ***	29	42.6 ***	42	
Campus	Quality of Interactions	42.2	43.8 **	14	46.1 ***	33	
Environment	Supportive Environment	36.7	38.2 *	12	40.0 ***	25	
Seniors				Your seniors co	mpared with		
		WMU	NSSE T	Гор 50%	NSSE T	op 10%	
Theme	Engagement Indicator	Mean	Mean	Effect size ✓	Mean	Effect size	✓
	Higher-Order Learning	38.2	41.8 ***	27	43.3 ***	38	
Academic	Reflective and Integrative Learning	38.6	40.0 ***	12	42.0 ***	28	
Challenge	Learning Strategies	37.5	40.7 ***	22	42.9 ***	38	
	Quantitative Reasoning	29.1	31.1 ***	12	33.0 ***	24	
Learning	Collaborative Learning	35.4	35.8	03 ✓	37.9 ***	18	
with Peers	Discussions with Diverse Others	41.3	42.3	06 ✓	44.3 ***	19	
Experiences	Student-Faculty Interaction	25.0	29.2 ***	27	33.0 ***	50	
with Faculty	Effective Teaching Practices	38.4	41.8 ***	25	43.8 ***	41	
Campus	Quality of Interactions	42.3	44.8 ***	22	46.9 ***	38	
Environment	Supportive Environment	31.6	34.8 ***	23	37.2 ***	41	

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by the pooled standard deviation; \*p < .05, \*\*p < .01, \*\*\*p < .01, \*\*\*p < .001 (2-tailed).

a. Precision-weighted means (produced by Hierarchical Linear Modeling) were used to determine the top 50% and top 10% institutions for each Engagement Indicator from all NSSE 2016 and 2017 institutions, separately by class. Using this method, Engagement Indicator scores of institutions with relatively large standard errors were adjusted toward the mean of all students, while those with smaller standard errors received smaller corrections. As a result, schools with less stable data—even those with high average scores—may not be among the top scorers. NSSE does not publish the names of the top 50% and top 10% institutions because of our commitment not to release institutional results and our policy against ranking institutions.

b. Check marks are assigned to comparisons that are either significant and positive, or non-significant with an effect size > -.10.



# Detailed Statistics<sup>a</sup> Western Michigan University

**Detailed Statistics: First-year students** 

Academic Challenge   Higher-Order Learning	.669 .272 .229 .001 .000 .390 .960 .621 .001	.020 050 054 296
Academic Challenge   Higher-Order Learning   WMU (N = 496)   37.2   13.0   .59   20   30   40   45   60   Carnegie Peers   37.0   13.0   .21   20   30   40   45   60   4.135   .3   Carnegie Class   37.9   12.9   .08   20   30   40   45   60   27.949  6   NSSE 2016 & 2017   37.9   13.3   .03   20   30   40   45   60   194.991  7   Top 50%   39.2   13.1   .04   20   30   40   50   60   114.39   .19   .19   Top 10%   41.2   13.3   .09   20   35   40   50   60   121.543   -3.9	.669 .272 .229 .001 .000 .390 .960 .621	.020 050 054 148 296
Higher-Order Learning           WMU (N = 496)         37.2         13.0         .59         20         30         40         45         60         4.135         .3           Carnegie Class         37.0         13.0         .21         20         30         40         45         60         4.135         .3           NSSE 2016 & 2017         37.9         13.3         .03         20         30         40         45         60         199.991        7           Top 50%         39.2         13.1         .04         20         30         40         50         60         114,391         -1.9           Top 10%         41.2         13.3         .09         20         35         40         50         60         21,543         -3.9           Reflective & Integrative Learning           WMU (N = 521)         34.8         11.8         .52         17         26         34         43         57           Carnegie Peers         34.3         11.9         .19         17         26         34         43         57         29.149         .0           NSSE 2016 & 2017         35.0         12.0 <t< td=""><td>.272 .229 .001 .000 .390 .960 .621</td><td>050 054 148 296</td></t<>	.272 .229 .001 .000 .390 .960 .621	050 054 148 296
WMU (N = 496)         37.2         13.0         .59         20         30         40         45         60           Camegie Peers         37.0         13.0         .21         20         30         40         45         60         4,135         .3           Camegie Class         37.9         12.9         .08         20         30         40         45         60         27,949        6           NSSE 2016 & 2017         37.9         13.3         .03         20         30         40         45         60         199,991        7           Top 50%         39.2         13.1         .04         20         30         40         45         60         199,991        7           Top 50%         39.2         13.1         .04         20         30         40         50         60         21,543         -1.9           Top 10%         41.2         13.3         .09         20         35         40         50         60         21,543         -3.9           Reflective & Integrative Learning           WMU (N = 521)         34.8         11.8         .07         17         26         34 <t< td=""><td>.272 .229 .001 .000 .390 .960 .621</td><td>050 054 148 296</td></t<>	.272 .229 .001 .000 .390 .960 .621	050 054 148 296
Camegie Peers 37.0 13.0 2.1 20 30 40 45 60 4,135 3.  Camegie Class 37.9 12.9 0.8 20 30 40 45 60 27,9496  NSSE 2016 & 2017 37.9 13.3 .03 20 30 40 45 60 199,9917  Top 50% 39.2 13.1 .04 20 30 40 50 60 114,391 -1.9  Top 10% 41.2 13.3 .09 20 35 40 50 60 21,543 -3.9  Reflective & Integrative Learning  WMU (N = 521) 34.8 11.8 .52 17 26 34 43 57  Carnegie Class 34.8 11.8 .07 17 26 34 43 57 29,149 .0  NSSE 2016 & 2017 35.0 12.0 .03 17 26 34 43 57 208,2903  Top 50% 36.6 12.0 .04 17 29 37 46 57 106,478 -1.8  Top 10% 38.3 12.3 .08 20 29 37 46 60 23,513 -3.5  Learning Strategies  WMU (N = 426) 37.8 13.3 .65 20 27 40 47 60 3,624 9  Carnegie Class 37.7 13.5 .09 20 27 40 47 60 24,665 .1  NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 178,0825  Top 50% 39.8 13.7 .03 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 33 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 33 40 53 60 27,814 -1.5  NSSE 2016 & 2017 38.3 15.7 .05 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 27 40 53 60 88,437 -2.1  Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 27 40 53 60 22,730 -4.2   Cuantitative Reasoning  WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53 40 53 60 22,730 -4.2   Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5  NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 123,336 -2.6  Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 133,336 -2.6	.272 .229 .001 .000 .390 .960 .621	050 054 148 296
Camegic Class 37.9 12.9 .08 20 30 40 45 60 27,9496 NSSE 2016 & 2017 37.9 13.3 .03 20 30 40 45 60 199,9917 Top 50% 39.2 13.1 .04 20 30 40 50 60 114,391 -1.9 Top 10% 41.2 13.3 .09 20 35 40 50 60 114,391 -1.9 WMU (N = 521) 34.8 11.8 .52 17 26 34 43 57 Camegic Peers 34.3 11.9 .19 17 26 34 43 57 29,149 .0 NSSE 2016 & 2017 35.0 12.0 .03 17 26 34 43 57 29,149 .0 NSSE 2016 & 2017 35.0 12.0 .04 17 29 37 46 57 106,478 -1.8 Top 10% 38.3 12.3 .08 20 29 37 46 60 23,513 -3.5 DELEARNING Strategies WMU (N = 426) 37.8 13.3 .65 20 27 40 47 60 23,513 -3.5 Top 50% 39.8 13.7 .03 20 27 40 47 60 24,665 .1 NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 24,665 .1 NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 24,665 .1 Top 10% 41.9 14.1 .09 20 33 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 33 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 4.2 Delatitative Reasoning WMU (N = 487) 26.3 15.2 .69 0 20 27 40 47 60 36 88,437 -2.1 Top 10% 41.9 14.1 .09 20 37 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 27 40 53 40 53 40 53 40 55 Camegic Peers 27.1 15.1 .25 0 20 27 40 53 40 53 40 53 40 55 A0 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 6	.272 .229 .001 .000 .390 .960 .621	050 054 148 296
NSSE 2016 & 2017	.229 .001 .000 .390 .960 .621	054 148 296
Top 50% 39.2 13.1 .04 20 30 40 50 60 114,391 -1.9 Top 10% 41.2 13.3 .09 20 35 40 50 60 21,543 -3.9    Reflective & Integrative Learning   WMU (N = 521) 34.8 11.8 .52 17 26 34 43 57	.390 .960 .621	148 296
Reflective & Integrative Learning   WMU (N = 521)   34.8   11.8   .52   17   26   34   43   57	.390 .960 .621	296 .040
WMU (N = 521)	.960 .621 .001	
Carnegie Peers 34.3 11.9 1.19 17 26 34 40 57 4,305 .5 Carnegie Class 34.8 11.8 .07 17 26 34 43 57 29,149 .0 NSSE 2016 & 2017 35.0 12.0 .03 17 26 34 43 57 208,2903 Top 50% 36.6 12.0 .04 17 29 37 46 57 106,478 -1.8 Top 10% 38.3 12.3 .08 20 29 37 46 60 23,513 -3.5  Learning Strategies  WMU (N = 426) 37.8 13.3 .65 20 27 40 47 60 Carnegie Peers 36.8 13.8 .24 13 27 40 47 60 3,624 .9 Carnegie Class 37.7 13.5 .09 20 27 40 47 60 24,665 .1 NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 178,0825 Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning  WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53 4,0958 Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 193,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning	.960 .621 .001	
Carnegie Class 34.8 11.8 .07 17 26 34 43 57 29,149 .0 NSSE 2016 & 2017 35.0 12.0 .03 17 26 34 43 57 208,2903 Top 50% 36.6 12.0 .04 17 29 37 46 57 106,478 -1.8 Top 10% 38.3 12.3 .08 20 29 37 46 60 23,513 -3.5     Learning Strategies	.960 .621 .001	
NSSE 2016 & 2017	.621 .001	- 002
Top 50% 36.6 12.0 .04 17 29 37 46 57 106.478 -1.8 Top 10% 38.3 12.3 .08 20 29 37 46 60 23.513 -3.5    Learning Strategies	.001	.002
Top 10% 38.3 12.3 .08 20 29 37 46 60 23,513 -3.5  Learning Strategies  WMU (N = 426) 37.8 13.3 .65 20 27 40 47 60  Carnegie Peers 36.8 13.8 .24 13 27 40 47 60 3,624 .9  Carnegie Class 37.7 13.5 .09 20 27 40 47 60 24,665 .1  NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 178,082 .5  Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning  WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53 4,095 -8  Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5  NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3  Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers  Collaborative Learning		022
Learning Strategies   WMU (N = 426)   37.8   13.3   .65   20   27   40   47   60   Carnegie Peers   36.8   13.8   .24   13   27   40   47   60   3,624   .9   Carnegie Class   37.7   13.5   .09   20   27   40   47   60   24,665   .1   NSSE 2016 & 2017   38.3   13.7   .03   20   27   40   47   60   178,082  5   Top 50%   39.8   13.7   .05   20   27   40   53   60   88,437   -2.1   Top 10%   41.9   14.1   .09   20   33   40   53   60   22,730   -4.2	.000	150
WMU (N = 426) 37.8 13.3 .65 20 27 40 47 60 Carnegie Peers 36.8 13.8 .24 13 27 40 47 60 3,624 .9 Carnegie Class 37.7 13.5 .09 20 27 40 47 60 24,665 .1 NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 178,0825 Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53 4,0958 Carnegie Peers 27.1 15.1 .25 0 20 27 40 60 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning		283
Carnegie Peers 36.8 13.8 .24 13 27 40 47 60 3,624 .9 Carnegie Class 37.7 13.5 .09 20 27 40 47 60 24,665 .1 NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 178,0825 Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53 4,0958 Carnegie Peers 27.1 15.1 .25 0 20 27 40 53 4,0958 Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning		
Carnegie Class 37.7 13.5 .09 20 27 40 47 60 24,665 .1  NSSE 2016 & 2017 38.3 13.7 .03 20 27 40 47 60 178,0825  Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1  Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning  WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53  Carnegie Peers 27.1 15.1 .25 0 20 27 40 53 4,0958  Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5  NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3  Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1		
NSSE 2016 & 2017	.192	.067
Top 50% 39.8 13.7 .05 20 27 40 53 60 88,437 -2.1 Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53 4,0958 Carnegie Peers 27.1 15.1 .25 0 20 27 40 53 4,0958 Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning	.923	.005
Top 10% 41.9 14.1 .09 20 33 40 53 60 22,730 -4.2  Quantitative Reasoning  WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53  Carnegie Peers 27.1 15.1 .25 0 20 27 40 53 4,0958  Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5  NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3  Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers  Collaborative Learning	.436	038
Quantitative Reasoning         WMU (N = 487)       26.3       15.2       .69       0       20       27       40       53         Carnegie Peers       27.1       15.1       .25       0       20       27       40       53       4,095      8         Carnegie Class       27.8       15.1       .09       0       20       27       40       60       27,814       -1.5         NSSE 2016 & 2017       27.6       15.4       .03       0       20       27       40       60       199,244       -1.3         Top 50%       28.8       15.2       .04       0       20       27       40       60       123,336       -2.6         Top 10%       30.4       15.2       .09       7       20       27       40       60       30,385       -4.1    Learning with Peers Collaborative Learning	.002	151
WMU (N = 487) 26.3 15.2 .69 0 20 27 40 53  Carnegie Peers 27.1 15.1 .25 0 20 27 40 53 4,0958  Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5  NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3  Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers  Collaborative Learning	.000	298
Carnegie Peers 27.1 15.1 .25 0 20 27 40 53 4,0958 Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5 NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3 Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning		
Carnegie Class 27.8 15.1 .09 0 20 27 40 60 27,814 -1.5  NSSE 2016 & 2017 27.6 15.4 .03 0 20 27 40 60 199,244 -1.3  Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6  Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers  Collaborative Learning		
NSSE 2016 & 2017	.261	054
Top 50% 28.8 15.2 .04 0 20 27 40 60 123,336 -2.6 Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning	.031	099
Top 10% 30.4 15.2 .09 7 20 27 40 60 30,385 -4.1  Learning with Peers Collaborative Learning	.060	085
Learning with Peers Collaborative Learning	.000	167
Collaborative Learning	.000	271
WMI $(N = 542)$ 32.5 14.3 61 10 20 30 40 60		
·	.310	047
•	.116	068
	.543	.026
•	.000	195
Top 10% 37.1 13.4 .08 15 25 40 45 60 558 -4.5	.000	338
Discussions with Diverse Others		
WMU (N = 424) 39.3 14.9 .72 20 30 40 50 60	010	01-
	.819	012
	.581	027
	.589	026
•	11/17	166
Top 10% 43.8 14.5 .09 20 35 45 60 60 26,877 -4.5	.001	313



# Detailed Statistics<sup>a</sup> Western Michigan University

### **Detailed Statistics: First-year students**

	Mea	n statist	ics	Percentile <sup>d</sup> scores					Comparison results			
				-					Deg. of	Mean		Effect
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	freedom <sup>e</sup>	diff.	Sig. <sup>f</sup>	size <sup>g</sup>
Experiences with Faculty												
Student-Faculty Interaction												
WMU $(N = 498)$	23.8	14.5	.65	5	15	20	35	50				
Carnegie Peers	21.3	14.4	.24	0	10	20	30	50	4,207	2.6	.000	.179
Carnegie Class	20.1	14.1	.08	0	10	20	30	45	28,401	3.8	.000	.268
NSSE 2016 & 2017	20.6	14.5	.03	0	10	20	30	50	203,147	3.2	.000	.224
Top 50%	23.8	14.7	.06	0	15	20	35	55	71,235	.0	.958	.002
Top 10%	27.2	15.6	.15	5	15	25	40	60	548	-3.4	.000	219
Effective Teaching Practices												
WMU $(N = 497)$	36.9	12.8	.57	16	28	36	44	60				
Carnegie Peers	37.7	12.7	.21	20	28	40	48	60	4,162	8	.178	064
Carnegie Class	37.8	12.8	.08	16	28	40	48	60	28,227	8	.147	066
NSSE 2016 & 2017	38.7	13.1	.03	16	28	40	48	60	202,126	-1.8	.003	135
Top 50%	40.7	13.0	.05	20	32	40	52	60	80,446	-3.8	.000	290
Top 10%	42.6	13.6	.10	20	36	44	56	60	527	-5.7	.000	418
Campus Environment												
Quality of Interactions												
WMU $(N = 404)$	42.2	11.6	.58	22	34	43	50	60				
Carnegie Peers	41.4	11.5	.21	20	34	42	50	60	3,454	.8	.189	.070
Carnegie Class	41.3	12.1	.08	18	34	42	50	60	23,465	.9	.139	.074
NSSE 2016 & 2017	41.7	12.4	.03	18	34	43	50	60	168,661	.5	.433	.039
Top 50%	43.8	11.5	.04	22	38	46	52	60	73,788	-1.6	.005	139
Top 10%	46.1	11.7	.10	24	40	48	56	60	13,007	-3.8	.000	326
Supportive Environment												
WMU $(N = 375)$	36.7	13.2	.68	15	28	38	45	60				
Carnegie Peers	35.9	13.2	.24	15	28	37	45	60	3,335	.8	.276	.060
Carnegie Class	36.4	13.2	.09	15	28	38	45	60	22,908	.3	.635	.025
NSSE 2016 & 2017	36.3	13.6	.03	15	28	38	45	60	166,024	.4	.587	.028
Top 50%	38.2	13.1	.04	18	30	40	48	60	90,300	-1.5	.025	116
Top 10%	40.0	13.0	.09	18	31	40	50	60	21,833	-3.3	.000	251

a. Results weighted by institution-reported sex and enrollment status (and institutional size for comparison groups).

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b. Standard deviation is a measure of the amount the individual scores deviate from the mean of all the scores in the distribution.

c. Standard error of the mean, used to compute a confidence interval (CI) around the sample mean. For example, the 95% CI (equal to the sample mean  $\pm$ 1.96 x SEM) is the range that is 95% likely to contain the true population mean.

d. A percentile is the point in the distribution of student-level EI scores at or below which a given percentage of EI scores fall.

e. Degrees of freedom used to compute the t-tests. Values vary from the total Ns due to weighting and whether equal variances were assumed.

f. Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

g. Effect size is the mean difference divided by the pooled standard deviation.



# Detailed Statistics<sup>a</sup> Western Michigan University

**Detailed Statistics: Seniors** 

	Mea	n statist	ics	Percentile <sup>d</sup> scores				Co	results			
		a= h	2514						Deg. of	Mean	a, f	Effect
Academic Challenge	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	freedom <sup>e</sup>	diff.	Sig. <sup>f</sup>	size <sup>g</sup>
Higher-Order Learning												
WMU (N = 958)	38.2	13.6	.44	15	30	40	50	60				
Carnegie Peers	39.2	13.8	.20	15	30	40	50	60	5,621	-1.0	.035	075
Carnegie Class	39.2	13.7	.07	20	30	40	50	60	38,217	-1.0	.003	073
NSSE 2016 & 2017	40.1	13.7	.07	20	30	40	50	60	297,424	-1.8	.000	134
Top 50%	41.8	13.7	.03	20	35	40	55	60	118,951	-3.6	.000	134
Top 10%	43.3	13.4	.07	20	35	40	55	60	35,840	-5.0	.000	375
Reflective & Integrative Learn	ing											
WMU (N = 996)	38.6	12.0	.38	20	31	40	49	60				
Carnegie Peers	37.3	12.5	.18	17	29	37	46	60	5,851	1.3	.004	.101
Carnegie Class	37.5	12.6	.06	17	29	37	46	60	39,570	1.1	.007	.086
NSSE 2016 & 2017	38.0	12.6	.02	17	29	37	46	60	307,219	.6	.162	.044
Top 50%	40.0	12.3	.04	20	31	40	49	60	121,592	-1.4	.000	117
Top 10%	42.0	12.2	.08	20	34	43	51	60	26,298	-3.4	.000	280
Learning Strategies												
WMU $(N = 846)$	37.5	14.2	.49	13	27	40	47	60				
Carnegie Peers	37.5	14.4	.22	13	27	40	47	60	5,036	.0	.963	002
Carnegie Class	37.9	14.4	.08	13	27	40	47	60	34,463	4	.441	027
NSSE 2016 & 2017	38.7	14.5	.03	13	27	40	53	60	270,679	-1.2	.013	085
Top 50%	40.7	14.4	.04	20	33	40	53	60	143,411	-3.2	.000	225
Top 10%	42.9	14.3	.07	20	33	40	60	60	42,351	-5.4	.000	377
Quantitative Reasoning												
WMU $(N = 952)$	29.1	15.8	.51	0	20	27	40	60				
Carnegie Peers	29.2	16.4	.24	0	20	27	40	60	5,613	1	.871	006
Carnegie Class	30.3	16.2	.08	0	20	27	40	60	38,085	-1.2	.030	071
NSSE 2016 & 2017	29.9	16.3	.03	0	20	27	40	60	958	7	.158	045
Top 50%	31.1	16.2	.04	0	20	33	40	60	180,727	-2.0	.000	124
Top 10%	33.0	15.9	.08	7	20	33	40	60	40,648	-3.9	.000	242
Learning with Peers												
Collaborative Learning												
WMU $(N = 1023)$	35.4	14.2	.45	15	25	35	45	60				
Carnegie Peers	32.4	14.6	.21	10	20	30	40	60	5,994	3.0	.000	.208
Carnegie Class	34.1	14.5	.07	10	25	35	45	60	40,569	1.3	.005	.089
NSSE 2016 & 2017	32.3	15.1	.03	5	20	30	40	60	1,030	3.2	.000	.211
Top 50%	35.8	13.8	.03	15	25	35	45	60	166,887	4	.383	027
Top 10%	37.9	13.4	.07	15	30	40	50	60	1,078	-2.5	.000	183
Discussions with Diverse Othe												
WMU $(N = 849)$	41.3	14.7	.50	20	30	40	55	60				
Carnegie Peers	40.4	15.8	.24	15	30	40	55	60	1,274	.9	.098	.059
Carnegie Class	40.2	15.8	.09	15	30	40	55	60	898	1.1	.028	.071
NSSE 2016 & 2017	40.5	15.9	.03	15	30	40	55	60	854	.9	.092	.054
Top 50%	42.3	15.6	.04	15	30	40	60	60	857	-1.0	.057	062
Top 10%	44.3	15.3	.08	20	35	45	60	60	888	-2.9	.000	191



# Detailed Statistics<sup>a</sup> Western Michigan University

**Detailed Statistics: Seniors** 

	Mea	n statist	ics	Percentile <sup>d</sup> scores				Comparison results  Deg. of Mean Effect					
			<del></del>	-					Deg. of	Mean			
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	freedom <sup>e</sup>	diff.	Sig. <sup>f</sup>	size <sup>g</sup>	
Experiences with Faculty													
Student-Faculty Interaction													
WMU $(N = 981)$	25.0	16.0	.51	0	15	20	35	60					
Carnegie Peers	24.7	15.9	.23	0	15	20	35	60	5,743	.3	.623	.017	
Carnegie Class	24.0	15.7	.08	0	10	20	35	55	38,772	1.0	.055	.062	
NSSE 2016 & 2017	23.6	15.9	.03	0	10	20	35	55	300,934	1.4	.006	.088	
Top 50%	29.2	15.7	.06	5	20	30	40	60	73,339	-4.3	.000	270	
Top 10%	33.0	16.0	.15	10	20	30	45	60	12,120	-8.0	.000	501	
Effective Teaching Practices													
WMU $(N = 968)$	38.4	13.1	.42	16	28	40	48	60					
Carnegie Peers	39.2	13.7	.20	16	32	40	48	60	5,694	8	.110	056	
Carnegie Class	38.9	13.5	.07	16	30	40	48	60	38,649	5	.218	040	
NSSE 2016 & 2017	39.6	13.7	.02	16	32	40	52	60	300,805	-1.2	.005	090	
Top 50%	41.8	13.5	.04	20	32	40	52	60	986	-3.4	.000	251	
Top 10%	43.8	13.4	.09	20	36	44	56	60	1,065	-5.4	.000	406	
Campus Environment													
Quality of Interactions													
WMU $(N = 786)$	42.3	10.8	.38	22	36	43	50	60					
Carnegie Peers	41.5	11.9	.19	20	34	42	50	60	1,195	.7	.090	.062	
Carnegie Class	41.2	11.9	.07	20	34	42	50	60	833	1.0	.010	.085	
NSSE 2016 & 2017	42.3	12.2	.02	20	35	44	50	60	791	.0	1.000	.000	
Top 50%	44.8	11.6	.04	23	38	46	54	60	800	-2.5	.000	219	
Top 10%	46.9	12.1	.07	23	40	50	58	60	843	-4.6	.000	384	
Supportive Environment													
WMU $(N = 806)$	31.6	13.8	.49	10	23	30	40	58					
Carnegie Peers	32.0	13.9	.22	10	23	33	40	60	4,752	4	.453	029	
Carnegie Class	32.3	13.8	.08	10	23	33	40	58	32,695	7	.159	050	
NSSE 2016 & 2017	32.3	14.2	.03	10	23	33	40	60	257,513	7	.145	051	
Top 50%	34.8	13.7	.04	13	25	35	45	60	117,857	-3.1	.000	230	
Top 10%	37.2	13.6	.09	13	28	38	48	60	21,966	-5.6	.000	408	

 $a. \ Results \ weighted \ by \ institution-reported \ sex \ and \ enrollment \ status \ (and \ institutional \ size \ for \ comparison \ groups).$ 

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b. Standard deviation is a measure of the amount the individual scores deviate from the mean of all the scores in the distribution.

c. Standard error of the mean, used to compute a confidence interval (CI) around the sample mean. For example, the 95% CI (equal to the sample mean  $\pm$ 1.96 x SEM) is the range that is 95% likely to contain the true population mean.

d. A percentile is the point in the distribution of student-level EI scores at or below which a given percentage of EI scores fall.

e. Degrees of freedom used to compute the t-tests. Values vary from the total Ns due to weighting and whether equal variances were assumed.

f. Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

 $g. \ Effect \ size \ is the mean difference divided by the pooled standard deviation.$