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# **NSSE 2018**

## **Engagement Indicators**

Michigan Technological University

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### 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
<i>Academic Challenge</i>	Higher-Order Learning Reflective & Integrative Learning Learning Strategies Quantitative Reasoning
<i>Learning with Peers</i>	Collaborative Learning Discussions with Diverse Others
<i>Experiences with Faculty</i>	Student-Faculty Interaction Effective Teaching Practices
<i>Campus Environment</i>	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 2017 and 2018 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).

*EIs 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 EI scores vary among your students and those in your comparison groups. The Report Builder 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](http://nsse.indiana.edu)

## 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:

- ▲ **Your students' average** was significantly higher ( $p < .05$ ) with an effect size at least .3 in magnitude.
- △ **Your students' average** was significantly higher ( $p < .05$ ) with an effect size less than .3 in magnitude.
- No significant difference.
- ▽ **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.

### First-Year Students

Theme	Engagement Indicator	Your first-year students	Your first-year students	Your first-year students
		compared with AITU	compared with Carnegie Class	compared with NSSE 2017 & 2018
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	▽	▽	▽

### Seniors

Theme	Engagement Indicator	Your seniors	Your seniors	Your seniors
		compared with AITU	compared with Carnegie Class	compared with NSSE 2017 & 2018
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	--	--	--

### Academic Challenge: First-year students

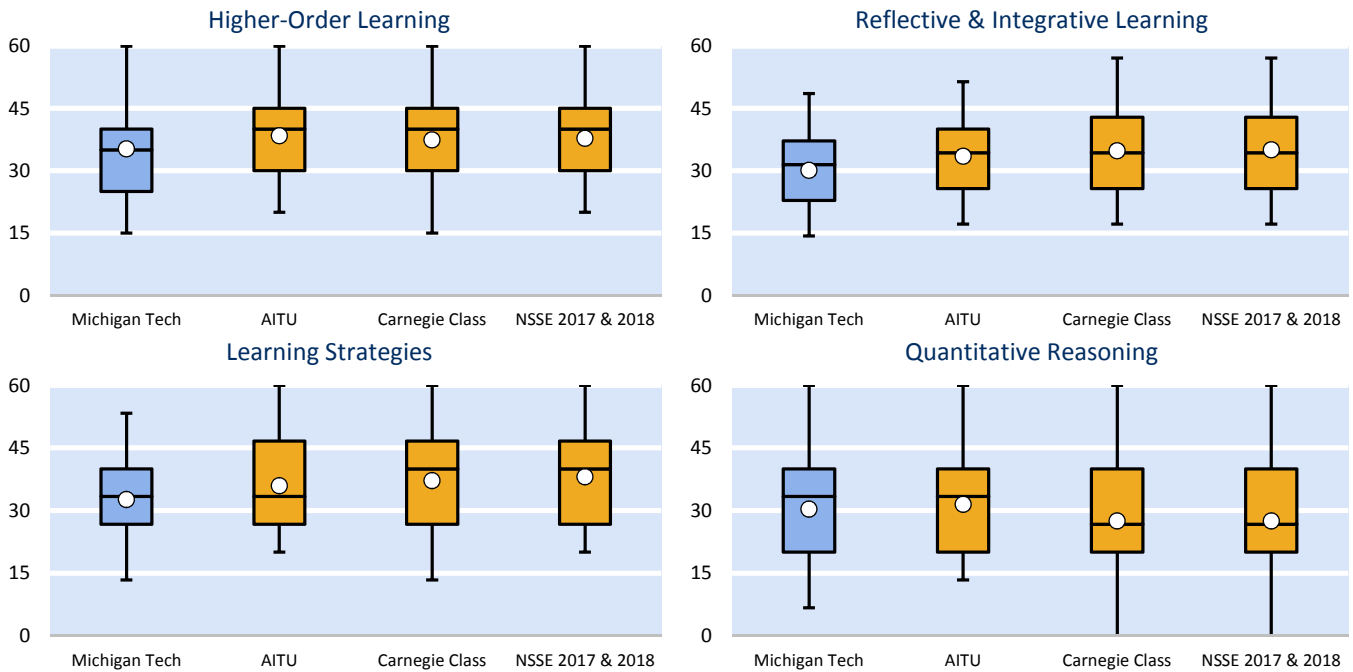
Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning*, *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

Engagement Indicator	Michigan Tech Mean	Your first-year students compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Higher-Order Learning	35.3	38.5 ***	-.26	37.5 **	-.16	37.8 ***	-.19
Reflective & Integrative Learning	30.1	33.5 ***	-.31	34.8 ***	-.39	35.1 ***	-.41
Learning Strategies	32.6	36.0 **	-.26	37.2 ***	-.33	38.1 ***	-.39
Quantitative Reasoning	30.3	31.5	-.09	27.5 ***	.19	27.5 ***	.19

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: First-year students (continued)

### Performance 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.

	Michigan Tech	Percentage point difference <sup>a</sup> between your FY students and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<b>Higher-Order Learning</b>				
<i>Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized...</i>				
	%			
4b. Applying facts, theories, or methods to practical problems or new situations	79	-7	+8	+8
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	65	-10	-3	-4
4d. Evaluating a point of view, decision, or information source	56	+4	-11	-13
4e. Forming a new idea or understanding from various pieces of information	55	-14	-11	-13
<b>Reflective &amp; Integrative Learning</b>				
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
2a. Combined ideas from different courses when completing assignments	42	-19	-10	-10
2b. Connected your learning to societal problems or issues	30	-9	-20	-21
2c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	27	-4	-23	-24
2d. Examined the strengths and weaknesses of your own views on a topic or issue	54	-2	-9	-10
2e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	61	-4	-9	-9
2f. Learned something that changed the way you understand an issue or concept	57	-10	-8	-9
2g. Connected ideas from your courses to your prior experiences and knowledge	71	-10	-5	-6
<b>Learning Strategies</b>				
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
9a. Identified key information from reading assignments	64	-3	-9	-11
9b. Reviewed your notes after class	51	-12	-12	-14
9c. Summarized what you learned in class or from course materials	52	-5	-8	-11
<b>Quantitative Reasoning</b>				
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
6a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	63	-11	+11	+11
6b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	44	+5	+6	+6
6c. Evaluated what others have concluded from numerical information	45	+1	+7	+7

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE website.

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: Seniors

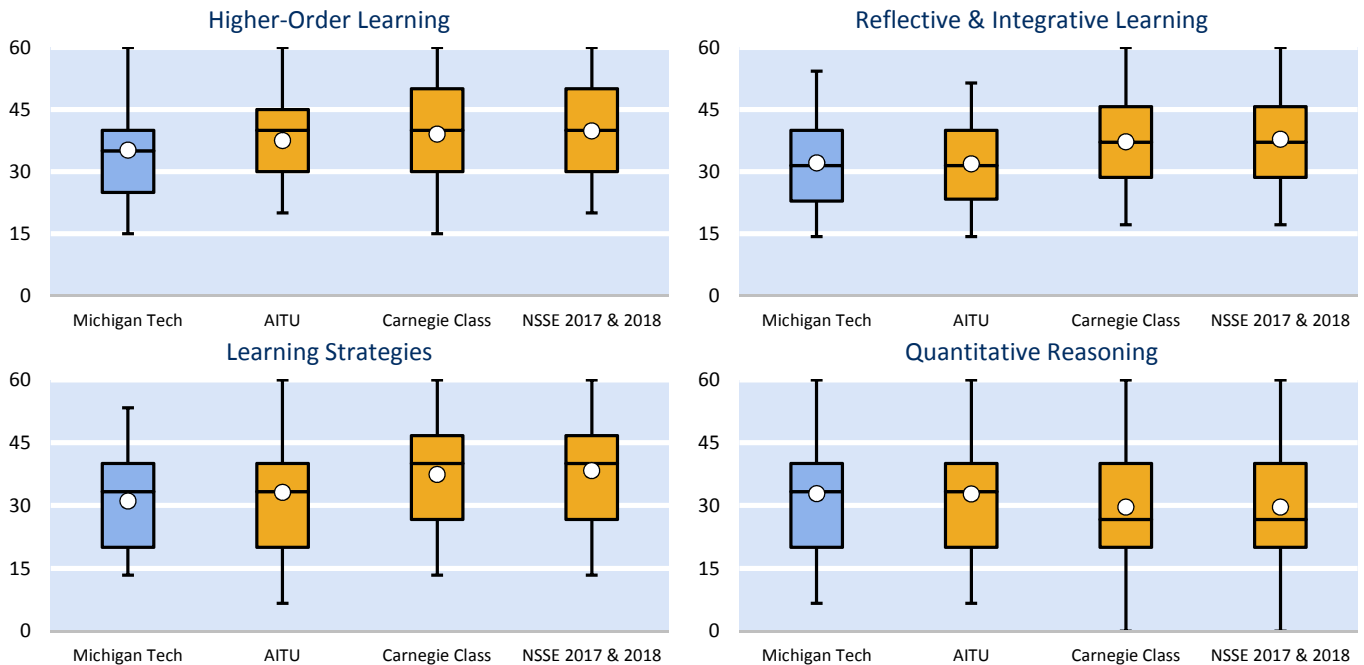
Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning*, *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

Engagement Indicator	Michigan Tech Mean	Your seniors compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Higher-Order Learning	35.2	37.5 *	-.18	39.0 ***	-.28	39.8 ***	-.34
Reflective & Integrative Learning	32.1	31.9	.02	37.2 ***	-.41	37.9 ***	-.46
Learning Strategies	31.1	33.1	-.15	37.4 ***	-.43	38.3 ***	-.50
Quantitative Reasoning	32.8	32.7	.00	29.6 ***	.20	29.6 ***	.20

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: Seniors (continued)

### Performance 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.

	Michigan Tech	Percentage point difference <sup>a</sup> between your seniors and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<b>Higher-Order Learning</b>				
<i>Percentage responding "Very much" or "Quite a bit" about how much coursework emphasized...</i>				
	%			
4b. Applying facts, theories, or methods to practical problems or new situations	75	-10	-2	-2
4c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	71	-2	-3	-4
4d. Evaluating a point of view, decision, or information source	45	-5	-21	-25
4e. Forming a new idea or understanding from various pieces of information	55	-8	-13	-16
<b>Reflective &amp; Integrative Learning</b>				
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
2a. Combined ideas from different courses when completing assignments	63	-3	-6	-5
2b. Connected your learning to societal problems or issues	37	+3	-21	-23
2c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	23	+3	-25	-29
2d. Examined the strengths and weaknesses of your own views on a topic or issue	54	+3	-10	-12
2e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	58	+2	-13	-14
2f. Learned something that changed the way you understand an issue or concept	60	-2	-9	-11
2g. Connected ideas from your courses to your prior experiences and knowledge	76	-1	-6	-7
<b>Learning Strategies</b>				
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
9a. Identified key information from reading assignments	61	-5	-15	-18
9b. Reviewed your notes after class	51	+0	-8	-10
9c. Summarized what you learned in class or from course materials	45	-4	-16	-19
<b>Quantitative Reasoning</b>				
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
6a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	74	-0	+18	+19
6b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	43	+3	+0	-1
6c. Evaluated what others have concluded from numerical information	50	+4	+6	+6

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### Learning with Peers: First-year students

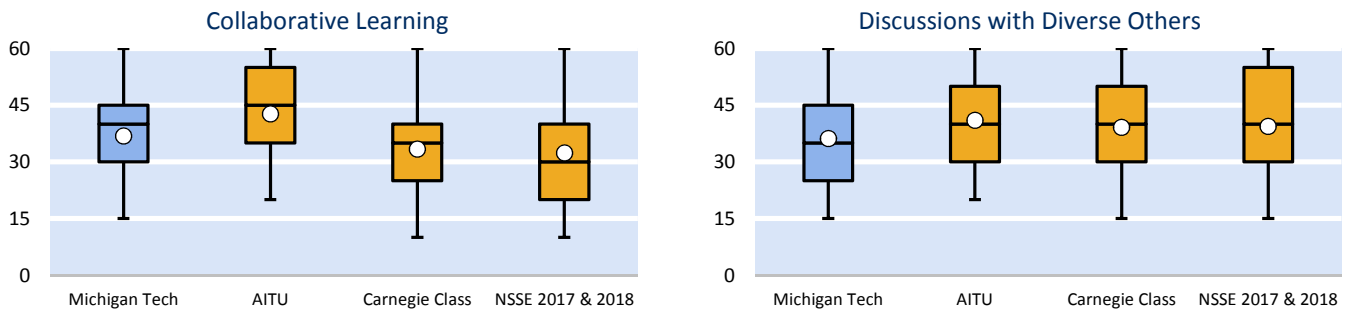
Collaborating with others in mastering difficult material and developing interpersonal and social competence prepare students to deal with complex, unscripted problems they will encounter during and after college. Two Engagement Indicators make up this theme: *Collaborative Learning* and *Discussions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

#### Mean Comparisons

Engagement Indicator	Michigan Tech Mean	Your first-year students compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Collaborative Learning	36.8	42.6 ***	-.45	33.4 ***	.25	32.3 ***	.32
Discussions with Diverse Others	36.2	40.9 ***	-.34	39.1 ***	-.19	39.4 ***	-.21

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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Collaborative Learning	Michigan Tech	Percentage point difference <sup>a</sup> between your FY students and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
	%			
1e. Asked another student to help you understand course material	69	-8	+13	+17
1f. Explained course material to one or more students	68	-6	+8	+10
1g. Prepared for exams by discussing or working through course material with other students	61	-9	+8	+11
1h. Worked with other students on course projects or assignments	72	-14	+16	+17
<i>Discussions with Diverse Others</i>				
<i>Percentage of students who responded that they "Very often" or "Often" had discussions with...</i>				
8a. People from a race or ethnicity other than your own	45	-23	-23	-25
8b. People from an economic background other than your own	69	-6	-1	-2
8c. People with religious beliefs other than your own	65	-10	-0	-1
8d. People with political views other than your own	66	-1	+0	+1

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### Learning with Peers: Seniors

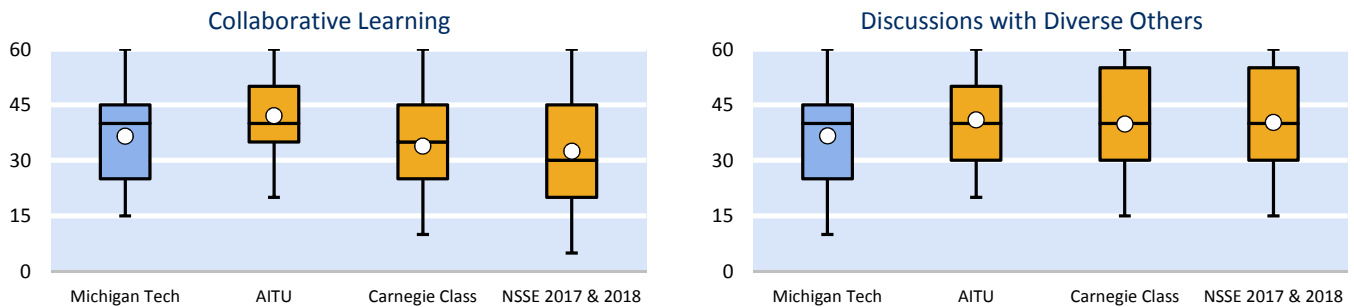
Collaborating with others in mastering difficult material and developing interpersonal and social competence prepare students to deal with complex, unscripted problems they will encounter during and after college. Two Engagement Indicators make up this theme: *Collaborative Learning* and *Discussions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

#### Mean Comparisons

Engagement Indicator	Michigan Tech Mean	Your seniors compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Collaborative Learning	36.6	42.1 ***	-.42	33.9 ***	.19	32.5 ***	.27
Discussions with Diverse Others	36.6	40.9 ***	-.30	39.8 ***	-.20	40.3 ***	-.23

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 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.

Collaborative Learning	Michigan Tech	Percentage point difference <sup>a</sup> between your seniors and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
	%			
1e. Asked another student to help you understand course material	58	-11	+11	+15
1f. Explained course material to one or more students	74	-5	+11	+15
1g. Prepared for exams by discussing or working through course material with other students	52	-14	+3	+5
1h. Worked with other students on course projects or assignments	75	-13	+9	+11
<i>Discussions with Diverse Others</i>				
<i>Percentage of students who responded that they "Very often" or "Often" had discussions with...</i>				
8a. People from a race or ethnicity other than your own	47	-21	-23	-25
8b. People from an economic background other than your own	64	-11	-8	-8
8c. People with religious beliefs other than your own	65	-10	-1	-3
8d. People with political views other than your own	69	-2	+3	+3

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### Experiences with Faculty: First-year students

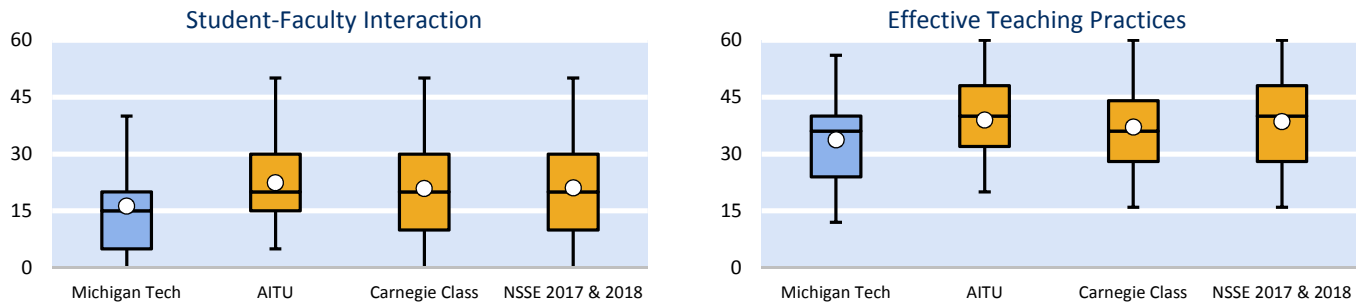
Students learn firsthand how experts think about and solve problems by interacting with faculty members inside and outside of instructional settings. As a result, faculty become role models, mentors, and guides for lifelong learning. In addition, effective teaching requires that faculty deliver course 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

Engagement Indicator	Michigan Tech Mean	Your first-year students compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Student-Faculty Interaction	16.3	22.4 ***	-.48	20.9 ***	-.32	21.1 ***	-.33
Effective Teaching Practices	33.7	38.9 ***	-.44	37.1 ***	-.26	38.5 ***	-.36

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Student-Faculty Interaction	Michigan Tech	Percentage point difference <sup>a</sup> between your FY students and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
	%			
3a. Talked about career plans with a faculty member	24	-4	-13	-13
3b. Worked w/faculty on activities other than coursework (committees, student groups, etc.)	15	-4	-6	-6
3c. Discussed course topics, ideas, or concepts with a faculty member outside of class	14	-20	-10	-11
3d. Discussed your academic performance with a faculty member	18	-11	-10	-12
<b>Effective Teaching Practices</b>				
<i>Percentage responding "Very much" or "Quite a bit" about how much instructors have...</i>				
5a. Clearly explained course goals and requirements	69	-10	-6	-8
5b. Taught course sessions in an organized way	69	-11	-4	-6
5c. Used examples or illustrations to explain difficult points	71	-8	-1	-3
5d. Provided feedback on a draft or work in progress	45	-17	-15	-19
5e. Provided prompt and detailed feedback on tests or completed assignments	45	-21	-10	-15

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## Experiences with Faculty: Seniors

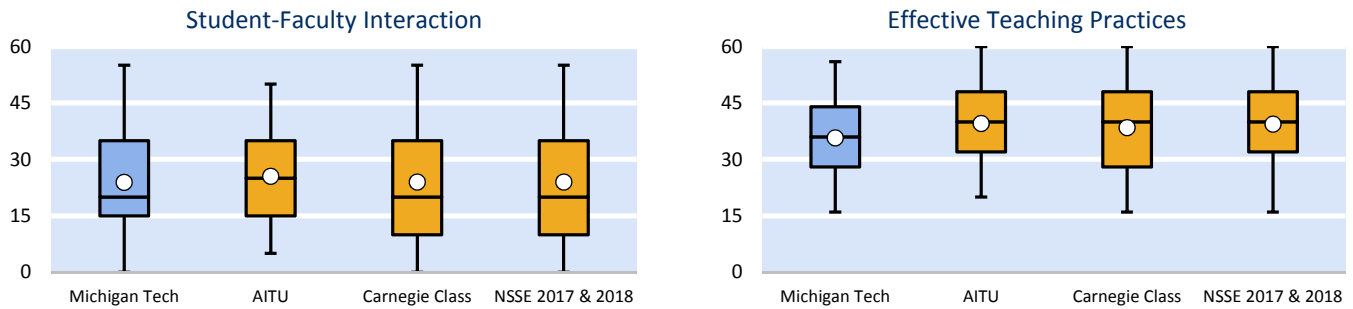
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		Mean	Effect size	Mean	Effect size	Mean	Effect size
Student-Faculty Interaction	23.9	25.5	-.11	23.9	.00	23.9	.00
Effective Teaching Practices	35.7	39.6 ***	-.31	38.4 ***	-.20	39.4 ***	-.27

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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		AITU	Carnegie Class	NSSE 2017 & 2018	
<i>Percentage of students who responded that they "Very often" or "Often"...</i>					
	%				
3a. Talked about career plans with a faculty member	40	+0	-3	-3	-3
3b. Worked w/faculty on activities other than coursework (committees, student groups, etc.)	33	+4	+5	+6	+6
3c. Discussed course topics, ideas, or concepts with a faculty member outside of class	33	-9	+1	+1	+1
3d. Discussed your academic performance with a faculty member	24	-9	-9	-9	-10
<i>Effective Teaching Practices</i>					
<i>Percentage responding "Very much" or "Quite a bit" about how much instructors have...</i>					
5a. Clearly explained course goals and requirements	69	-11	-10	-11	-11
5b. Taught course sessions in an organized way	71	-10	-5	-7	-7
5c. Used examples or illustrations to explain difficult points	78	-4	+2	+1	+1
5d. Provided feedback on a draft or work in progress	44	-13	-12	-16	-16
5e. Provided prompt and detailed feedback on tests or completed assignments	58	-8	-3	-6	-6

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE website.

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: First-year students

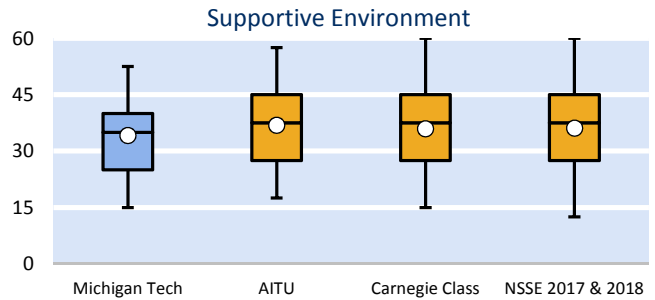
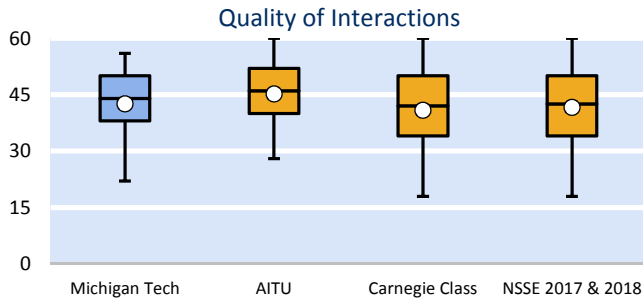
Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment*. Below are three views of your results alongside those of your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

#### Mean Comparisons

Engagement Indicator	Michigan Tech Mean	Your first-year students compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Quality of Interactions	42.6	45.2 **	-.27	40.9 **	.14	41.7	.07
Supportive Environment	34.1	36.9 **	-.23	36.0 *	-.14	36.1 **	-.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* < .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 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.

Quality of Interactions	Michigan Tech	Percentage point difference <sup>a</sup> between your FY students and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<i>Percentage rating their interactions a 6 or 7 (on a scale from 1="Poor" to 7="Excellent") with...</i>				
	%			
13a. Students	50	-13	+2	+0
13b. Academic advisors	51	-3	+4	+2
13c. Faculty	42	-15	-2	-6
13d. Student services staff (career services, student activities, housing, etc.)	49	-7	+7	+5
13e. Other administrative staff and offices (registrar, financial aid, etc.)	52	-3	+13	+9
<i>Supportive Environment</i>				
<i>Percentage responding "Very much" or "Quite a bit" about how much the institution emphasized...</i>				
14b. Providing support to help students succeed academically	80	-8	+5	+4
14c. Using learning support services (tutoring services, writing center, etc.)	85	-4	+8	+8
14d. Encouraging contact among students from diff. backgrounds (soc., racial/eth., relig., etc.)	46	-10	-14	-16
14e. Providing opportunities to be involved socially	69	-4	-3	-2
14f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	70	-3	-0	+0
14g. Helping you manage your non-academic responsibilities (work, family, etc.)	31	-3	-10	-11
14h. Attending campus activities and events (performing arts, athletic events, etc.)	64	+5	-1	+0
14i. Attending events that address important social, economic, or political issues	35	-5	-15	-16

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE website.

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: Seniors

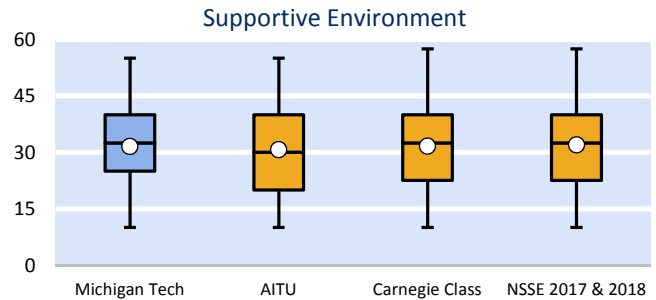
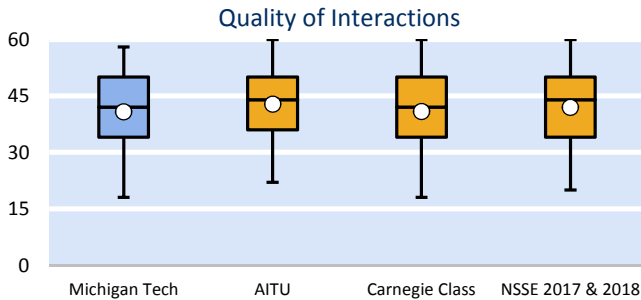
Students benefit and are more satisfied in supportive settings that cultivate positive relationships among students, faculty, and staff. Two Engagement Indicators investigate this theme: *Quality of Interactions* and *Supportive Environment*. Below are three views of your results alongside those of your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

#### Mean Comparisons

Engagement Indicator	Michigan Tech Mean	Your seniors compared with					
		AITU		Carnegie Class		NSSE 2017 & 2018	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Quality of Interactions	40.8	42.8 *	-.18	40.9	-.01	42.0	-.10
Supportive Environment	31.6	30.7	.07	31.7	-.01	32.0	-.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 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.

Quality of Interactions	Michigan Tech	Percentage point difference <sup>a</sup> between your seniors and		
		AITU	Carnegie Class	NSSE 2017 & 2018
<i>Percentage rating their interactions a 6 or 7 (on a scale from 1="Poor" to 7="Excellent") with...</i>				
	%			
13a. Students	55	-5	+0	-1
13b. Academic advisors	46	-6	-0	-5
13c. Faculty	45	-10	-7	-10
13d. Student services staff (career services, student activities, housing, etc.)	39	-3	+1	-2
13e. Other administrative staff and offices (registrar, financial aid, etc.)	44	-4	+6	+3
<i>Supportive Environment</i>				
<i>Percentage responding "Very much" or "Quite a bit" about how much the institution emphasized...</i>				
14b. Providing support to help students succeed academically	76	-2	+8	+6
14c. Using learning support services (tutoring services, writing center, etc.)	77	+3	+14	+12
14d. Encouraging contact among students from diff. backgrounds (soc., racial/eth., relig., etc.)	42	+2	-10	-13
14e. Providing opportunities to be involved socially	66	+5	+1	+2
14f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	62	+3	+1	+2
14g. Helping you manage your non-academic responsibilities (work, family, etc.)	25	+1	-4	-6
14h. Attending campus activities and events (performing arts, athletic events, etc.)	60	+12	+6	+8
14i. Attending events that address important social, economic, or political issues	30	+3	-11	-12

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE website.

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 Top 50% and Top 10% Institutions

While NSSE's policy is not to rank institutions (see [nsse.indiana.edu/html/position\\_policies.cfm](http://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 2017 and 2018 NSSE institutions, and
- (b) institutions with average scores placing them in the top 10% of all 2017 and 2018 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 (✓) signifies those comparisons where your average score was at least comparable<sup>b</sup> 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

Theme	Engagement Indicator	Michigan Tech Mean	Your first-year students compared with					
			NSSE Top 50%			NSSE Top 10%		
			Mean	Effect size	✓	Mean	Effect size	✓
<i>Academic Challenge</i>	Higher-Order Learning	35.3	38.9 ***	-.28		40.5 ***	-.39	
	Reflective and Integrative Learning	30.1	36.5 ***	-.53		38.1 ***	-.66	
	Learning Strategies	32.6	39.5 ***	-.50		41.6 ***	-.64	
	Quantitative Reasoning	30.3	28.7 *	.11	✓	30.4	.00	✓
<i>Learning with Peers</i>	Collaborative Learning	36.8	35.1 *	.13	✓	37.2	-.03	✓
	Discussions with Diverse Others	36.2	41.4 ***	-.35		43.4 ***	-.49	
<i>Experiences with Faculty</i>	Student-Faculty Interaction	16.3	24.3 ***	-.54		27.2 ***	-.70	
	Effective Teaching Practices	33.7	40.3 ***	-.50		42.0 ***	-.60	
<i>Campus Environment</i>	Quality of Interactions	42.6	43.9 *	-.11		45.9 ***	-.27	
	Supportive Environment	34.1	37.9 ***	-.29		39.7 ***	-.42	

#### Seniors

Theme	Engagement Indicator	Michigan Tech Mean	Your seniors compared with					
			NSSE Top 50%			NSSE Top 10%		
			Mean	Effect size	✓	Mean	Effect size	✓
<i>Academic Challenge</i>	Higher-Order Learning	35.2	41.3 ***	-.45		42.5 ***	-.53	
	Reflective and Integrative Learning	32.1	39.6 ***	-.61		41.1 ***	-.74	
	Learning Strategies	31.1	40.2 ***	-.63		42.3 ***	-.79	
	Quantitative Reasoning	32.8	30.7 *	.13	✓	32.7	.01	✓
<i>Learning with Peers</i>	Collaborative Learning	36.6	35.7	.07	✓	38.1 *	-.11	
	Discussions with Diverse Others	36.6	41.9 ***	-.34		43.8 ***	-.46	
<i>Experiences with Faculty</i>	Student-Faculty Interaction	23.9	29.2 ***	-.34		33.3 ***	-.59	
	Effective Teaching Practices	35.7	41.1 ***	-.40		43.1 ***	-.54	
<i>Campus Environment</i>	Quality of Interactions	40.8	44.4 ***	-.30		46.5 ***	-.47	
	Supportive Environment	31.6	34.3 ***	-.19		36.4 ***	-.34	

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 < .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 2017 and 2018 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: First-Year Students

	Mean statistics			Percentile <sup>d</sup> scores					Comparison results			
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size <sup>g</sup>
<b>Academic Challenge</b>												
<b>Higher-Order Learning</b>												
Michigan Tech (N = 287)	35.3	12.1	.71	15	25	35	40	60				
AITU	38.5	12.4	.62	20	30	40	45	60	684	-3.1	.001	-.256
Carnegie Class	37.5	13.1	.07	15	30	40	45	60	293	-2.2	.003	-.164
NSSE 2017 & 2018	37.8	13.2	.03	20	30	40	45	60	287	-2.5	.000	-.191
Top 50%	38.9	13.1	.04	20	30	40	50	60	133,106	-3.6	.000	-.278
Top 10%	40.5	13.3	.08	20	30	40	50	60	31,848	-5.2	.000	-.390
<b>Reflective &amp; Integrative Learning</b>												
Michigan Tech (N = 306)	30.1	10.6	.61	14	23	31	37	49				
AITU	33.5	11.1	.54	17	26	34	40	51	725	-3.4	.000	-.311
Carnegie Class	34.8	11.9	.06	17	26	34	43	57	312	-4.7	.000	-.395
NSSE 2017 & 2018	35.1	11.9	.02	17	26	34	43	57	306	-4.9	.000	-.414
Top 50%	36.5	11.8	.03	17	29	37	43	57	307	-6.3	.000	-.535
Top 10%	38.1	12.0	.07	20	29	37	46	60	314	-7.9	.000	-.661
<b>Learning Strategies</b>												
Michigan Tech (N = 273)	32.6	12.7	.77	13	27	33	40	53				
AITU	36.0	12.8	.66	20	27	33	47	60	647	-3.3	.001	-.261
Carnegie Class	37.2	13.7	.08	13	27	40	47	60	278	-4.5	.000	-.330
NSSE 2017 & 2018	38.1	13.7	.03	20	27	40	47	60	273	-5.4	.000	-.394
Top 50%	39.5	13.7	.04	20	27	40	53	60	107,883	-6.9	.000	-.502
Top 10%	41.6	14.1	.09	20	33	40	53	60	280	-9.0	.000	-.639
<b>Quantitative Reasoning</b>												
Michigan Tech (N = 278)	30.3	13.5	.81	7	20	33	40	60				
AITU	31.5	13.5	.69	13	20	33	40	60	658	-1.2	.278	-.086
Carnegie Class	27.5	15.1	.09	0	20	27	40	60	283	2.8	.001	.185
NSSE 2017 & 2018	27.5	15.3	.03	0	20	27	40	60	278	2.9	.001	.186
Top 50%	28.7	15.2	.04	0	20	27	40	60	278	1.7	.041	.110
Top 10%	30.4	15.3	.08	7	20	27	40	60	282	-.1	.948	-.003
<b>Learning with Peers</b>												
<b>Collaborative Learning</b>												
Michigan Tech (N = 321)	36.8	12.4	.69	15	30	40	45	60				
AITU	42.6	13.1	.63	20	35	45	55	60	711	-5.8	.000	-.451
Carnegie Class	33.4	14.0	.07	10	25	35	40	60	327	3.5	.000	.249
NSSE 2017 & 2018	32.3	14.4	.03	10	20	30	40	60	321	4.6	.000	.316
Top 50%	35.1	13.6	.04	15	25	35	45	60	321	1.7	.013	.126
Top 10%	37.2	13.6	.08	15	25	40	45	60	327	-.4	.568	-.029
<b>Discussions with Diverse Others</b>												
Michigan Tech (N = 275)	36.2	13.8	.83	15	25	35	45	60				
AITU	40.9	14.0	.72	20	30	40	50	60	653	-4.8	.000	-.343
Carnegie Class	39.1	15.4	.09	15	30	40	50	60	281	-2.9	.001	-.191
NSSE 2017 & 2018	39.4	15.5	.03	15	30	40	55	60	275	-3.2	.000	-.207
Top 50%	41.4	15.0	.04	15	30	40	55	60	276	-5.2	.000	-.349
Top 10%	43.4	14.8	.09	20	35	45	60	60	280	-7.3	.000	-.491



#### Detailed Statistics: First-Year Students

	Mean statistics			Percentile <sup>d</sup> scores					Comparison results			
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size <sup>g</sup>
<b>Experiences with Faculty</b>												
<b>Student-Faculty Interaction</b>												
Michigan Tech (N = 302)	16.3	12.2	.70	0	5	15	20	40				
AITU	22.4	13.2	.65	5	15	20	30	50	708	-6.1	.000	-.480
Carnegie Class	20.9	14.4	.08	0	10	20	30	50	309	-4.6	.000	-.321
NSSE 2017 & 2018	21.1	14.6	.03	0	10	20	30	50	302	-4.8	.000	-.331
Top 50%	24.3	14.8	.05	5	15	20	35	55	304	-8.0	.000	-.538
Top 10%	27.2	15.8	.13	5	15	25	40	60	323	-10.9	.000	-.697
<b>Effective Teaching Practices</b>												
Michigan Tech (N = 287)	33.7	12.4	.73	12	24	36	40	56				
AITU	38.9	11.6	.58	20	32	40	48	60	677	-5.2	.000	-.438
Carnegie Class	37.1	12.9	.07	16	28	36	44	60	32,227	-3.4	.000	-.264
NSSE 2017 & 2018	38.5	13.1	.03	16	28	40	48	60	224,515	-4.8	.000	-.363
Top 50%	40.3	13.1	.04	20	32	40	52	60	98,492	-6.6	.000	-.500
Top 10%	42.0	13.7	.09	20	32	40	52	60	294	-8.3	.000	-.604
<b>Campus Environment</b>												
<b>Quality of Interactions</b>												
Michigan Tech (N = 266)	42.6	10.1	.62	22	38	44	50	56				
AITU	45.2	9.9	.52	28	40	46	52	60	629	-2.6	.001	-.265
Carnegie Class	40.9	12.2	.07	18	34	42	50	60	272	1.7	.006	.142
NSSE 2017 & 2018	41.7	12.5	.03	18	34	43	50	60	266	.9	.143	.073
Top 50%	43.9	11.6	.04	22	38	46	52	60	267	-1.3	.037	-.113
Top 10%	45.9	12.1	.09	22	40	48	56	60	277	-3.3	.000	-.272
<b>Supportive Environment</b>												
Michigan Tech (N = 270)	34.1	11.7	.71	15	25	35	40	53				
AITU	36.9	12.1	.63	18	28	38	45	58	634	-2.7	.004	-.229
Carnegie Class	36.0	13.3	.08	15	28	38	45	60	276	-1.8	.012	-.137
NSSE 2017 & 2018	36.1	13.6	.03	13	28	38	45	60	270	-1.9	.007	-.143
Top 50%	37.9	13.2	.04	15	30	40	48	60	271	-3.8	.000	-.288
Top 10%	39.7	13.1	.08	18	30	40	50	60	276	-5.5	.000	-.422

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

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 +/- 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: Seniors

	Mean statistics			Percentile <sup>d</sup> scores					Comparison results			
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size <sup>g</sup>
<b>Academic Challenge</b>												
<b>Higher-Order Learning</b>												
Michigan Tech (N = 305)	35.2	13.1	.75	15	25	35	40	60				
AITU	37.5	12.7	.68	20	30	40	45	60	651	-2.3	.022	-.180
Carnegie Class	39.0	13.7	.08	15	30	40	50	60	33,393	-3.9	.000	-.281
NSSE 2017 & 2018	39.8	13.7	.03	20	30	40	50	60	234,163	-4.6	.000	-.340
Top 50%	41.3	13.5	.04	20	35	40	55	60	109,990	-6.1	.000	-.453
Top 10%	42.5	13.7	.08	20	35	40	55	60	33,251	-7.3	.000	-.531
<b>Reflective &amp; Integrative Learning</b>												
Michigan Tech (N = 318)	32.1	11.7	.66	14	23	31	40	54				
AITU	31.9	11.1	.58	14	23	31	40	51	686	.2	.791	.020
Carnegie Class	37.2	12.5	.07	17	29	37	46	60	34,997	-5.1	.000	-.408
NSSE 2017 & 2018	37.9	12.4	.03	17	29	37	46	60	243,964	-5.7	.000	-.460
Top 50%	39.6	12.2	.04	20	31	40	49	60	107,329	-7.4	.000	-.609
Top 10%	41.1	12.2	.08	20	33	40	51	60	23,077	-9.0	.000	-.737
<b>Learning Strategies</b>												
Michigan Tech (N = 286)	31.1	13.0	.77	13	20	33	40	53				
AITU	33.1	14.2	.77	7	20	33	40	60	621	-2.1	.062	-.151
Carnegie Class	37.4	14.6	.08	13	27	40	47	60	292	-6.3	.000	-.435
NSSE 2017 & 2018	38.3	14.5	.03	13	27	40	47	60	286	-7.2	.000	-.500
Top 50%	40.2	14.4	.04	20	33	40	53	60	116,317	-9.1	.000	-.634
Top 10%	42.3	14.2	.08	20	33	40	53	60	291	-11.3	.000	-.793
<b>Quantitative Reasoning</b>												
Michigan Tech (N = 291)	32.8	14.5	.85	7	20	33	40	60				
AITU	32.7	14.6	.79	7	20	33	40	60	630	.1	.963	.004
Carnegie Class	29.6	16.0	.09	0	20	27	40	60	296	3.2	.000	.198
NSSE 2017 & 2018	29.6	16.1	.03	0	20	27	40	60	291	3.2	.000	.197
Top 50%	30.7	16.0	.04	0	20	33	40	60	291	2.1	.014	.132
Top 10%	32.7	15.7	.09	7	20	33	40	60	296	.1	.884	.008
<b>Learning with Peers</b>												
<b>Collaborative Learning</b>												
Michigan Tech (N = 332)	36.6	14.0	.77	15	25	40	45	60				
AITU	42.1	12.1	.62	20	35	40	50	60	657	-5.5	.000	-.423
Carnegie Class	33.9	14.6	.08	10	25	35	45	60	36,233	2.7	.001	.186
NSSE 2017 & 2018	32.5	15.0	.03	5	20	30	45	60	332	4.1	.000	.274
Top 50%	35.7	13.9	.04	15	25	35	45	60	140,689	.9	.232	.066
Top 10%	38.1	13.5	.09	15	30	40	50	60	23,749	-1.5	.046	-.110
<b>Discussions with Diverse Others</b>												
Michigan Tech (N = 289)	36.6	15.1	.89	10	25	40	45	60				
AITU	40.9	13.8	.75	20	30	40	50	60	625	-4.3	.000	-.299
Carnegie Class	39.8	15.8	.09	15	30	40	55	60	31,149	-3.2	.001	-.204
NSSE 2017 & 2018	40.3	15.8	.03	15	30	40	55	60	218,113	-3.7	.000	-.232
Top 50%	41.9	15.6	.04	15	30	40	60	60	152,422	-5.3	.000	-.340
Top 10%	43.8	15.5	.08	20	35	45	60	60	36,899	-7.2	.000	-.464

#### Detailed Statistics: Seniors

	Mean statistics			Percentile <sup>d</sup> scores					Comparison results			
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Sig. <sup>f</sup>	Effect size <sup>g</sup>
<b>Experiences with Faculty</b>												
<b>Student-Faculty Interaction</b>												
Michigan Tech (N = 312)	23.9	14.9	.84	0	15	20	35	55				
AITU	25.5	14.3	.76	5	15	25	35	50	667	-1.6	.160	-.109
Carnegie Class	23.9	15.7	.09	0	10	20	35	55	34,028	.0	.959	-.003
NSSE 2017 & 2018	23.9	15.9	.03	0	10	20	35	55	237,915	-.1	.948	-.004
Top 50%	29.2	15.8	.06	5	20	30	40	60	60,908	-5.3	.000	-.338
Top 10%	33.3	16.1	.18	10	20	35	45	60	341	-9.4	.000	-.585
<b>Effective Teaching Practices</b>												
Michigan Tech (N = 299)	35.7	12.8	.74	16	28	36	44	56				
AITU	39.6	12.5	.67	20	32	40	48	60	645	-3.9	.000	-.306
Carnegie Class	38.4	13.6	.07	16	28	40	48	60	33,441	-2.7	.001	-.199
NSSE 2017 & 2018	39.4	13.7	.03	16	32	40	48	60	234,907	-3.7	.000	-.268
Top 50%	41.1	13.6	.04	16	32	40	52	60	300	-5.4	.000	-.400
Top 10%	43.1	13.7	.10	20	36	44	56	60	308	-7.4	.000	-.541
<b>Campus Environment</b>												
<b>Quality of Interactions</b>												
Michigan Tech (N = 283)	40.8	11.3	.67	18	34	42	50	58				
AITU	42.8	10.9	.59	22	36	44	50	60	616	-2.0	.024	-.182
Carnegie Class	40.9	12.2	.07	18	34	42	50	60	289	-.1	.914	-.006
NSSE 2017 & 2018	42.0	12.3	.03	20	34	44	50	60	283	-1.2	.081	-.095
Top 50%	44.4	11.9	.04	22	38	46	54	60	78,841	-3.6	.000	-.302
Top 10%	46.5	12.3	.09	22	40	50	58	60	292	-5.7	.000	-.466
<b>Supportive Environment</b>												
Michigan Tech (N = 281)	31.6	12.1	.72	10	25	33	40	55				
AITU	30.7	13.4	.73	10	20	30	40	55	611	.9	.380	.070
Carnegie Class	31.7	13.8	.08	10	23	33	40	58	287	-.1	.920	-.005
NSSE 2017 & 2018	32.0	14.1	.03	10	23	33	40	58	281	-.4	.600	-.027
Top 50%	34.3	13.7	.04	13	25	35	43	60	282	-2.6	.000	-.192
Top 10%	36.4	13.7	.10	13	28	38	45	60	290	-4.7	.000	-.344

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

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 +/- 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.