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# Tennessee Technological University

## NSSE 2017 Major Field Report, Part II

### Comparisons to Other Institutions

## Engineering

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*Comparing your students majoring in the fields shown below to those  
in the same fields at your comparison group institutions*

*The Major Field Report group 'Engineering' includes the following majors: Aero-, astronautical engineering; Architecture; Bioengineering; Biomedical engineering; Chemical engineering; Civil engineering; Computer engineering and technology; Computer information systems; Computer science; Electrical or electronic engineering; Engineering (general); Industrial engineering; Information systems; Information technology; Materials engineering; Mechanical engineering; Network security and systems; Other computer science and technology; Other engineering; Petroleum engineering; Software engineering; Telecommunications; Urban planning.*

*Note:*

*The Major Field Report was formatted for printing. When viewing on screen in Excel, some content may appear truncated or oddly formatted. This is normal. Increasing the zoom level or viewing the report in Print Preview will improve on-screen display.*

### About Your Major Field Report, Part II

NSSE data serve to identify institutional strengths and weaknesses in reference to selected comparison institutions, yet institution-level comparisons may not capture important variation in student engagement that can be found within key subpopulations such as major. This report displays selected results for students at your institution and at your selected comparison institutions in the major category: Engineering.

#### NSSE results included in MFR, Part II

- Engagement Indicators
- High-Impact Practices
- Frequencies and Statistical Comparisons
- Respondent Profile

### Related-Major Groups

Self-reported first and second (if applicable) majors were identified from the survey. Your institution had the option to customize how these majors were grouped, using up to ten related-major groups. Institutions choosing not to customize their major categories receive NSSE's ten default groups. The majors used in this report are listed on the cover page of this report.

### Sample

This report is based on information from all randomly selected or census-administered students in the indicated group of majors for both your institution and your comparison institutions. Targeted and locally administered oversamples and other non-randomly selected students are not included. Report Sample (if applicable) respondents are also excluded.

### Class

Results are presented separately by institution-reported class level. Keep in mind that majors are student-reported. First-year students may report *intended* majors that have not yet been *declared*. Also, much of the first-year experience may take place outside of the major field. For these reasons, first-year results should be interpreted with caution.

### Technical Requirements

Related-major groups with fewer than 5 respondents in a given class are not reported (columns are blank). Groups containing at least 5 respondents, but fewer than 20, are reported in frequency distributions only. Comparison groups must contain at least 20 respondents in the major category, or they remain blank. Although 20 is a minimum requirement for all other statistics (Engagement Indicators, means, etc.), keep in mind that any statistical result requires a sufficient number of respondents per group to produce a reliable estimate. Due to the disaggregation of results by student-reported major, *Major Field Report* results are unweighted.

**Report Sections** (Those marked with an asterisk are included if at least one related-major group includes 20 or more respondents.)

Engagement Indicators*	Results on NSSE's ten Engagement Indicators (EIs) organized into four themes. See your <i>Engagement Indicators</i> report for more details.
High-Impact Practices*	Results on student participation in six High-Impact Practices (HIPs). See your <i>High-Impact Practices</i> report for more details.
Frequencies and Statistical Comparisons*	Response frequencies and statistical comparisons (including tests of significance and effect sizes) for all survey items except the demographics for your institution and your three core comparison groups.
Respondent Profile	Response frequencies for all demographic questions for your institution and your three core comparison groups.

### 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 themes: Academic Challenge, Learning with Peers, Experiences with Faculty, and Campus Environment. The tables below compare average scores<sup>a</sup> for your students in this related-major category with students in your comparison groups within the same category.

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.

Theme	Engagement Indicator	First-Year Students in Engineering			Seniors in Engineering		
		Your first-year students compared with Carnegie Class	Your first-year students compared with THEC Peer Group	Your first-year students compared with NSSE 2016 & 2017	Your seniors compared with Carnegie Class	Your seniors compared with THEC Peer Group	Your seniors compared with NSSE 2016 & 2017
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	—	—	—	—	—	—

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Engagement Indicators: Engineering Tennessee Technological University

### First-year students<sup>a</sup> in Engineering

	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>												
Tennessee Tech (N = 100)	37.1	13.9	1.39	18	30	35	45	60				
Carnegie Class	38.0	13.2	.26	15	30	40	45	60	2,752	-.9		-.067
THEC Peer Group	40.9	13.6	.87	20	35	40	55	60	343	-3.8	*	-.276
NSSE 2016 & 2017	38.2	12.8	.08	20	30	40	45	60	25,288	-1.1		-.083
<b>Reflective &amp; Integrative Learning</b>												
Tennessee Tech (N = 101)	31.0	10.5	1.04	17	23	31	37	49				
Carnegie Class	33.5	11.7	.23	14	26	34	40	54	2,781	-2.6	*	-.220
THEC Peer Group	34.9	12.5	.80	14	26	34	43	57	220	-3.9	**	-.330
NSSE 2016 & 2017	33.3	11.5	.07	14	26	34	40	54	25,583	-2.3	*	-.203
<b>Learning Strategies</b>												
Tennessee Tech (N = 101)	38.2	12.9	1.28	20	27	40	47	60				
Carnegie Class	36.8	13.6	.26	13	27	40	47	60	2,756	1.4		.107
THEC Peer Group	39.9	14.1	.90	20	27	40	53	60	342	-1.7		-.122
NSSE 2016 & 2017	36.5	13.5	.08	13	27	33	47	60	25,391	1.8		.131
<b>Quantitative Reasoning</b>												
Tennessee Tech (N = 99)	26.8	14.3	1.43	7	13	27	40	53				
Carnegie Class	30.2	15.2	.29	7	20	27	40	60	2,760	-3.4	*	-.222
THEC Peer Group	31.2	16.0	1.02	7	20	33	40	60	342	-4.4	*	-.283
NSSE 2016 & 2017	30.1	14.8	.09	7	20	27	40	60	25,310	-3.3	*	-.221
<b>Learning with Peers</b>												
<b>Collaborative Learning</b>												
Tennessee Tech (N = 101)	36.2	14.4	1.43	15	25	35	50	60				
Carnegie Class	34.0	14.2	.27	10	25	35	45	60	2,765	2.2		.154
THEC Peer Group	35.6	15.1	.97	10	25	35	45	60	341	.6		.040
NSSE 2016 & 2017	35.1	14.3	.09	10	25	35	45	60	25,424	1.1		.075
<b>Discussions with Diverse Others</b>												
Tennessee Tech (N = 102)	40.2	13.3	1.31	20	30	40	50	60				
Carnegie Class	39.1	15.5	.30	15	30	40	50	60	112	1.1		.069
THEC Peer Group	40.9	15.6	.99	15	30	40	60	60	220	-.7		-.045
NSSE 2016 & 2017	39.9	15.4	.10	15	30	40	55	60	25,418	.3		.018

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Engagement Indicators: Engineering

### Tennessee Technological University

#### First-year students<sup>a</sup> in Engineering

	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>												
Tennessee Tech (N = 99)	20.1	14.5	1.46	0	10	20	30	50				
Carnegie Class	19.3	13.9	.27	0	10	15	25	45	2,766	.7		.051
THEC Peer Group	19.3	15.1	.96	0	10	15	25	50	344	.7		.048
NSSE 2016 & 2017	19.1	13.8	.09	0	10	15	25	45	25,321	.9		.069
<b>Effective Teaching Practices</b>												
Tennessee Tech (N = 102)	40.4	12.3	1.21	20	32	40	52	60				
Carnegie Class	38.5	12.8	.25	16	30	40	48	60	2,784	1.9		.147
THEC Peer Group	40.6	12.8	.81	20	32	40	52	60	347	-.2		-.013
NSSE 2016 & 2017	38.2	12.7	.08	16	28	40	48	60	25,597	2.2		.175
<b>Campus Environment</b>												
<b>Quality of Interactions</b>												
Tennessee Tech (N = 102)	43.6	11.7	1.16	20	36	46	52	60				
Carnegie Class	42.0	12.1	.24	20	35	43	50	60	2,644	1.6		.131
THEC Peer Group	41.3	13.0	.83	18	32	44	50	60	346	2.3		.182
NSSE 2016 & 2017	42.2	11.8	.08	20	36	44	50	60	24,315	1.4		.119
<b>Supportive Environment</b>												
Tennessee Tech (N = 100)	34.3	13.2	1.32	15	23	35	43	60				
Carnegie Class	35.6	13.2	.26	13	28	35	45	60	2,779	-1.3		-.098
THEC Peer Group	37.1	14.4	.92	13	28	38	50	60	344	-2.8		-.199
NSSE 2016 & 2017	36.1	13.1	.08	15	28	38	45	60	25,531	-1.8		-.138

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Engagement Indicators: Engineering Tennessee Technological University

### Seniors<sup>a</sup> in Engineering

	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>												
Tennessee Tech (N = 138)	36.3	13.9	1.18	10	30	40	45	60				
Carnegie Class	38.4	13.8	.24	15	30	40	50	60	3,414	-2.1		-.153
THEC Peer Group	40.7	14.2	.86	15	30	40	50	60	412	-4.4	**	-.313
NSSE 2016 & 2017	38.1	13.4	.08	15	30	40	45	60	30,618	-1.8		-.133
<b>Reflective &amp; Integrative Learning</b>												
Tennessee Tech (N = 139)	31.8	10.8	.92	17	26	31	37	49				
Carnegie Class	33.4	12.0	.21	14	26	34	40	54	3,449	-1.6		-.134
THEC Peer Group	34.2	12.2	.73	14	26	34	43	57	306	-2.4	*	-.207
NSSE 2016 & 2017	33.3	11.8	.07	14	26	34	40	54	30,906	-1.5		-.127
<b>Learning Strategies</b>												
Tennessee Tech (N = 137)	37.0	15.4	1.32	7	27	40	47	60				
Carnegie Class	36.3	14.7	.26	13	27	33	47	60	3,412	.7		.049
THEC Peer Group	39.1	15.2	.91	13	27	40	53	60	413	-2.1		-.138
NSSE 2016 & 2017	35.1	14.6	.08	13	27	33	47	60	30,637	2.0		.135
<b>Quantitative Reasoning</b>												
Tennessee Tech (N = 137)	35.3	15.5	1.33	7	27	33	47	60				
Carnegie Class	32.9	15.9	.28	7	20	33	40	60	3,415	2.4		.150
THEC Peer Group	35.1	15.8	.94	7	27	33	47	60	416	.2		.014
NSSE 2016 & 2017	33.3	15.7	.09	7	20	33	47	60	30,593	2.0		.127
<b>Learning with Peers</b>												
<b>Collaborative Learning</b>												
Tennessee Tech (N = 139)	39.4	14.4	1.22	15	30	40	50	60				
Carnegie Class	35.7	14.9	.26	10	25	35	45	60	3,426	3.7	**	.250
THEC Peer Group	39.6	13.8	.83	15	30	40	50	60	415	-.2		-.015
NSSE 2016 & 2017	37.3	14.6	.08	15	25	40	50	60	30,724	2.1		.141
<b>Discussions with Diverse Others</b>												
Tennessee Tech (N = 138)	41.0	16.8	1.43	5	30	40	60	60				
Carnegie Class	40.0	16.7	.29	5	30	40	55	60	3,406	1.0		.059
THEC Peer Group	41.9	16.1	.97	15	30	40	60	60	415	-.9		-.057
NSSE 2016 & 2017	40.1	16.2	.09	10	30	40	55	60	30,670	.9		.057

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Engagement Indicators: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

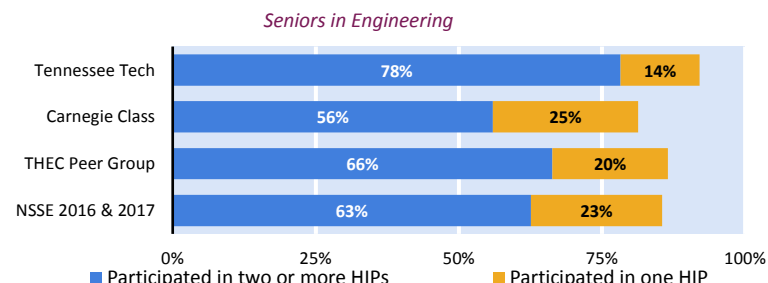
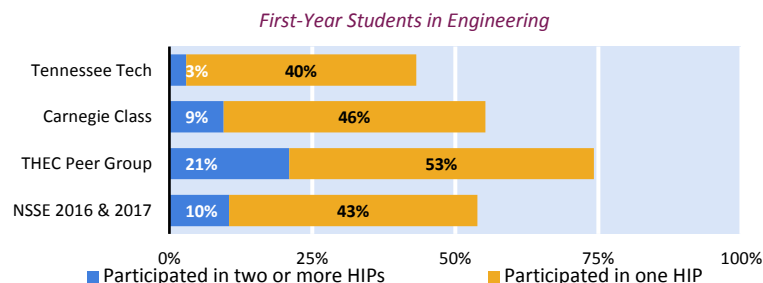
	Mean statistics			Percentile <sup>d</sup> scores					Comparison results		
	Mean	SD <sup>b</sup>	SEM <sup>c</sup>	5th	25th	50th	75th	95th	Deg. of freedom <sup>e</sup>	Mean diff.	Effect size <sup>g</sup>
<b>Experiences with Faculty</b>											
<b>Student-Faculty Interaction</b>											
Tennessee Tech (N = 136)	24.0	16.2	1.39	0	13	25	35	60			
Carnegie Class	21.8	15.8	.28	0	10	20	30	55	3,412	2.2	.140
THEC Peer Group	25.1	15.9	.95	0	15	20	40	60	415	-1.1	-.067
NSSE 2016 & 2017	22.1	15.3	.09	0	10	20	30	50	30,638	1.9	.124
<b>Effective Teaching Practices</b>											
Tennessee Tech (N = 139)	36.9	13.7	1.16	12	28	40	44	60			
Carnegie Class	37.4	13.7	.24	12	28	36	48	60	3,454	-.4	-.033
THEC Peer Group	38.9	13.5	.80	16	32	40	48	60	419	-2.0	-.148
NSSE 2016 & 2017	36.9	13.4	.08	16	28	36	48	60	30,935	.0	.001
<b>Campus Environment</b>											
<b>Quality of Interactions</b>											
Tennessee Tech (N = 134)	41.0	11.6	1.00	18	34	42	50	60			
Carnegie Class	41.7	12.0	.22	20	34	43	50	60	3,245	-.7	-.056
THEC Peer Group	41.2	12.2	.74	18	34	42	50	60	404	-.2	-.019
NSSE 2016 & 2017	41.0	11.9	.07	20	34	42	50	60	29,343	.0	-.002
<b>Supportive Environment</b>											
Tennessee Tech (N = 139)	28.9	13.7	1.16	8	20	28	38	55			
Carnegie Class	30.2	14.3	.25	8	20	30	40	58	3,436	-1.3	-.090
THEC Peer Group	31.0	14.8	.88	8	20	30	40	60	417	-2.1	-.146
NSSE 2016 & 2017	30.7	13.8	.08	8	20	30	40	55	30,815	-1.8	-.131

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## High-Impact Practices: Engineering Tennessee Technological University

### Overall HIP Participation<sup>a,h</sup>

The figures below display the percentage of students who participated in High-Impact Practices. Both figures include participation in service-learning, a learning community, and research with faculty. The senior figure also includes participation in an internship or field experience, study abroad, and culminating senior experience. The first segment in each bar shows the percentage who participated in at least two HIPs, and the full bar (both colors) represents the percentage who participated in at least one.



### Statistical Comparisons

The table below displays the percentage of your students who participated in a given High-Impact Practice, including the percentage who participated overall (at least one, two or more). It also graphs the difference, in percentage points, between your students and those of your comparison groups. Blue bars indicate how much higher your institution's percentage is compared to the comparison group. Dark red bars indicate how much lower your institution's percentage is compared to the comparison group.

	Your students' participation compared with:							
	Tennessee Tech	Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		
<i>First-Year Students in Engineering</i>	%	Difference <sup>i</sup>	ES <sup>j</sup>	Difference <sup>i</sup>	ES <sup>j</sup>	Difference <sup>i</sup>	ES <sup>j</sup>	
12. Service-Learning	37	<div><div></div></div> -12	* -.25	<div><div></div></div> -30	*** -.61	<div><div></div></div> -9	-.18	
11c. Learning Community	5	<div><div></div></div> -8	* -.30	<div><div></div></div> -20	*** -.60	<div><div></div></div> -10	** -.34	
11e. Research with Faculty	4	+0 <div><div></div></div>	.02	<div><div></div></div> -3	-.13	<div><div></div></div> -1	-.06	
<b>Participated in at least one</b>	43	<div><div></div></div> -12	* -.24	<div><div></div></div> -31	*** -.64	<div><div></div></div> -11	* -.22	
<b>Participated in two or more</b>	3	<div><div></div></div> -7	* -.28	<div><div></div></div> -18	*** -.61	<div><div></div></div> -7	* -.31	
<i>Seniors in Engineering</i>								
12. Service-Learning	51	+4 <div><div></div></div>	.08	<div><div></div></div> -16	** -.32	+4 <div><div></div></div>	.09	
11c. Learning Community	21	+1 <div><div></div></div>	.03	<div><div></div></div> -3	-.06	<div><div></div></div> -2	-.04	
11e. Research with Faculty	30	+9 <div><div></div></div>	* .20	+8 <div><div></div></div>	.17	+3 <div><div></div></div>	.06	
11a. Internship or Field Exp.	64	+13 <div><div></div></div>	** .26	+13 <div><div></div></div>	* .27	+10 <div><div></div></div>	* .21	
11d. Study Abroad	9	+2 <div><div></div></div>	.06	+3 <div><div></div></div>	.13	<div><div></div></div> -2	-.08	
11f. Culminating Senior Exp.	62	+18 <div><div></div></div>	*** .36	+14 <div><div></div></div>	** .28	+10 <div><div></div></div>	* .21	
<b>Participated in at least one</b>	92	+11 <div><div></div></div>	** .32	+6 <div><div></div></div>	.18	+7 <div><div></div></div>	* .21	
<b>Participated in two or more</b>	78	+22 <div><div></div></div>	*** .48	+12 <div><div></div></div>	* .27	+16 <div><div></div></div>	*** .35	



# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with					
														Carnegie Class	THEC Peer Group	NSSE 2016 & 2017			
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
1. During the current school year, about how often have you done the following?																			
a. Asked questions or contributed to course discussions in other ways	askquest	1	Never	2	2	79	3	6	2	1,026	4	2.7	2.8	-.06	2.9	-.15	2.7	-.01	
		2	Sometimes	44	44	1,020	38	82	33	9,960	39								
		3	Often	34	34	997	37	99	40	9,134	36								
		4	Very often	21	21	599	22	59	24	5,417	21								
		Total	101	100	2,695	100	246	100	25,537	100									
b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	27	27	509	19	60	24	4,936	19	2.3	2.4	-.03	2.3	.02	2.4	-.04	
		2	Sometimes	28	28	1,045	39	84	34	9,513	37								
		3	Often	30	30	758	28	66	27	7,264	29								
		4	Very often	16	16	379	14	37	15	3,754	15								
		Total	101	100	2,691	100	247	100	25,467	100									
c. Come to class without completing readings or assignments	unpreparedr <i>(Reverse-coded version of unprepared created by NSSE.)</i>	1	Very often	3	3	122	5	13	5	1,114	4	3.1	3.1	.03	3.1	.04	3.0	.07	
		2	Often	6	6	302	11	33	13	3,247	13								
		3	Sometimes	71	70	1,521	57	126	51	14,519	57								
		4	Never	22	22	744	28	75	30	6,608	26								
		Total	102	100	2,689	100	247	100	25,488	100									
d. Attended an art exhibit, play, or other arts performance (dance, music, etc.)	attendart	1	Never	24	24	1,234	46	116	47	10,720	42	2.3	1.8 *** ▲	.61	1.8 *** ▲	.50	1.8 *** ▲	.52	
		2	Sometimes	41	40	1,006	37	79	32	9,979	39								
		3	Often	23	23	331	12	37	15	3,481	14								
		4	Very often	14	14	120	4	15	6	1,319	5								
		Total	102	100	2,691	100	247	100	25,499	100									
e. Asked another student to help you understand course material	CLaskhelp	1	Never	6	6	225	8	12	5	1,934	8	3.0	2.7 ** ▲	.32	2.8	.20	2.7 * ▲	.25	
		2	Sometimes	26	26	957	36	94	38	8,474	33								
		3	Often	35	35	968	36	76	31	9,394	37								
		4	Very often	34	34	541	20	64	26	5,726	22								
		Total	101	100	2,691	100	246	100	25,528	100									
f. Explained course material to one or more students	CLexplain	1	Never	4	4	115	4	12	5	975	4	2.8	2.8	-.03	2.9	-.08	2.9	-.08	
		2	Sometimes	33	32	864	32	70	28	7,807	31								
		3	Often	45	44	1,101	41	106	43	10,634	42								
		4	Very often	20	20	614	23	59	24	6,116	24								
		Total	102	100	2,694	100	247	100	25,532	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Your first-year students compared with						
												Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
g. Prepared for exams by discussing or working through course material with other students	CLstudy	1	Never	13	13	406	15	33	13	3,290	13	2.7	2.5	.15	2.7	.03	2.6	.06
		2	Sometimes	32	31	918	34	75	30	8,227	32							
		3	Often	30	29	845	31	78	32	8,333	33							
		4	Very often	27	26	519	19	60	24	5,666	22							
		Total	102	100	2,688	100	246	100	25,516	100								
h. Worked with other students on course projects or assignments	CLproject	1	Never	4	4	169	6	19	8	1,484	6	2.8	2.8	.03	2.8	-.06	2.8	-.01
		2	Sometimes	40	39	919	34	77	31	8,337	33							
		3	Often	33	32	1,014	38	77	31	9,916	39							
		4	Very often	25	25	586	22	74	30	5,762	23							
		Total	102	100	2,688	100	247	100	25,499	100								
i. Given a course presentation	present	1	Never	20	20	497	18	59	24	5,510	22	2.2	2.2	.00	2.2	.04	2.2	.04
		2	Sometimes	47	47	1,343	50	111	45	12,181	48							
		3	Often	27	27	641	24	52	21	5,759	23							
		4	Very often	7	7	212	8	25	10	2,077	8							
		Total	101	100	2,693	100	247	100	25,527	100								
2. During the current school year, about how often have you done the following?																		
a. Combined ideas from different courses when completing assignments	RIintegrate	1	Never	12	12	242	9	17	7	1,956	8	2.5	2.5	-.10	2.6	-.22	2.6	-.13
		2	Sometimes	44	44	1,122	42	99	40	10,660	42							
		3	Often	32	32	959	36	85	34	9,511	37							
		4	Very often	13	13	362	13	46	19	3,373	13							
		Total	101	100	2,685	100	247	100	25,500	100								
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	21	21	351	13	30	12	3,353	13	2.1	2.4 ***	-.38	2.4 ***	-.43	2.4 ***	-.35
		2	Sometimes	57	56	1,194	44	106	43	11,575	45							
		3	Often	18	18	840	31	82	33	7,862	31							
		4	Very often	6	6	303	11	29	12	2,678	11							
		Total	102	100	2,688	100	247	100	25,468	100								
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIDiverse	1	Never	18	18	406	15	35	14	4,216	17	2.2	2.4 *	-.21	2.4	-.22	2.3	-.17
		2	Sometimes	52	51	1,164	43	114	46	10,981	43							
		3	Often	26	25	799	30	67	27	7,434	29							
		4	Very often	6	6	312	12	31	13	2,850	11							
		Total	102	100	2,681	100	247	100	25,481	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	4	4	165	6	13	5	1,534	6	2.7	2.7	-.03	2.8	-.15	2.7	-.01	
		2	Sometimes	34	33	881	33	81	33	8,579	34								
		3	Often	53	52	1,165	43	91	37	11,170	44								
		4	Very often	11	11	471	18	63	25	4,190	16								
		Total	102	100	2,682	100	248	100	25,473	100									
e. Tried to better understand someone else's views by imagining how an issue looks from their perspective	RIperspect	1	Never	7	7	104	4	11	5	1,027	4	2.8	2.9	-.11	3.0 *	-.25	2.8	-.08	
		2	Sometimes	27	27	778	29	52	21	7,519	30								
		3	Often	47	47	1,166	43	111	45	11,406	45								
		4	Very often	19	19	639	24	70	29	5,522	22								
		Total	100	100	2,687	100	244	100	25,474	100									
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	3	3	96	4	12	5	868	3	2.7	2.8	-.07	2.8	-.11	2.8	-.07	
		2	Sometimes	37	37	885	33	76	31	8,311	33								
		3	Often	44	44	1,167	44	99	40	11,441	45								
		4	Very often	17	17	532	20	59	24	4,818	19								
		Total	101	100	2,680	100	246	100	25,438	100									
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	3	3	48	2	6	2	389	2	2.9	3.0	-.18	3.1 *	-.28	3.0	-.17	
		2	Sometimes	23	23	590	22	50	20	5,478	22								
		3	Often	58	57	1,267	47	100	41	12,858	51								
		4	Very often	18	18	766	29	89	36	6,688	26								
		Total	102	100	2,671	100	245	100	25,413	100									
3. During the current school year, about how often have you done the following?																			
a. Talked about career plans with a faculty member	SFcareer	1	Never	30	30	712	26	79	32	6,661	26	2.2	2.1	.03	2.0	.11	2.1	.06	
		2	Sometimes	37	37	1,170	44	104	42	11,630	46								
		3	Often	22	22	556	21	37	15	4,978	20								
		4	Very often	12	12	249	9	27	11	2,197	9								
		Total	101	100	2,687	100	247	100	25,466	100									
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	48	47	1,390	52	120	49	12,806	50	1.8	1.7	.14	1.8	.06	1.7	.12	
		2	Sometimes	28	27	806	30	77	31	8,097	32								
		3	Often	21	21	366	14	34	14	3,246	13								
		4	Very often	5	5	128	5	16	6	1,300	5								
		Total	102	100	2,690	100	247	100	25,449	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
c. Discussed course topics, ideas, or concepts with a faculty member outside of class	SFdiscuss	1	Never	35	35	889	33	84	34	8,224	32	1.9	2.0	-.08	2.0	-.08	2.0	-.08	
		2	Sometimes	47	47	1,164	43	104	42	11,293	44								
		3	Often	13	13	460	17	40	16	4,357	17								
		4	Very often	6	6	175	7	19	8	1,551	6								
		Total	101	100	2,688	100	247	100	25,425	100									
d. Discussed your academic performance with a faculty member	SFperform	1	Never	21	21	691	26	75	30	7,068	28	2.1	2.1	.08	2.1	.09	2.0	.13	
		2	Sometimes	53	52	1,301	48	103	42	12,173	48								
		3	Often	19	19	516	19	48	19	4,615	18								
		4	Very often	8	8	180	7	21	9	1,564	6								
		Total	101	100	2,688	100	247	100	25,420	100									
4. During the current school year, how much has your coursework emphasized the following?																			
a. Memorizing course material	memorize	1	Very little	7	7	104	4	11	4	1,094	4	2.8	2.8	.00	2.9	-.03	2.8	.05	
		2	Some	30	29	792	29	71	29	7,764	30								
		3	Quite a bit	37	36	1,219	45	104	42	11,714	46								
		4	Very much	28	27	575	21	60	24	4,924	19								
		Total	102	100	2,690	100	246	100	25,496	100									
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	5	5	80	3	4	2	654	3	3.0	3.1	-.02	3.2	-.18	3.1	-.05	
		2	Some	19	19	536	20	49	20	4,714	19								
		3	Quite a bit	45	44	1,239	46	91	37	12,093	47								
		4	Very much	33	32	835	31	103	42	8,013	31								
		Total	102	100	2,690	100	247	100	25,474	100									
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	6	6	107	4	8	3	872	3	2.8	2.9	-.17	3.1 **	-.37	3.0 *	-.20	
		2	Some	31	31	685	26	49	20	6,158	24								
		3	Quite a bit	41	41	1,140	42	96	39	11,396	45								
		4	Very much	23	23	751	28	94	38	7,000	28								
		Total	101	100	2,683	100	247	100	25,426	100									
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	11	11	154	6	9	4	1,702	7	2.6	2.8	-.19	2.9 *	-.29	2.8	-.15	
		2	Some	35	35	828	31	76	31	7,976	31								
		3	Quite a bit	36	36	1,134	42	96	39	10,665	42								
		4	Very much	19	19	561	21	64	26	5,070	20								
		Total	101	100	2,677	100	245	100	25,413	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
e. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	3	3	145	5	6	2	1,281	5	2.9	2.8	.16	3.0	-.05	2.8	.13	
		2	Some	28	27	813	30	69	28	7,205	28								
		3	Quite a bit	43	42	1,129	42	95	38	11,396	45								
		4	Very much	28	27	596	22	77	31	5,548	22								
		Total	102	100	2,683	100	247	100	25,430	100									
5. During the current school year, to what extent have your instructors done the following?																			
a. Clearly explained course goals and requirements	ETgoals	1	Very little	2	2	59	2	5	2	566	2	3.1	3.1	.10	3.2	-.13	3.0	.13	
		2	Some	16	16	527	20	35	14	5,173	20								
		3	Quite a bit	48	48	1,250	47	101	41	12,234	48								
		4	Very much	35	35	847	32	106	43	7,519	29								
		Total	101	100	2,683	100	247	100	25,492	100									
b. Taught course sessions in an organized way	ETorganize	1	Very little	2	2	87	3	5	2	733	3	3.1	3.0	.11	3.2	-.05	3.0	.13	
		2	Some	20	20	530	20	42	17	5,118	20								
		3	Quite a bit	42	42	1,257	47	107	43	12,272	48								
		4	Very much	37	37	810	30	93	38	7,338	29								
		Total	101	100	2,684	100	247	100	25,461	100									
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	2	2	91	3	8	3	765	3	3.2	3.0	.17	3.1	.05	3.0	.17	
		2	Some	17	17	560	21	48	19	5,217	20								
		3	Quite a bit	43	42	1,165	43	92	37	11,464	45								
		4	Very much	40	39	866	32	99	40	8,006	31								
		Total	102	100	2,682	100	247	100	25,452	100									
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	6	6	246	9	25	10	2,433	10	2.7	2.7	-.02	2.8	-.07	2.7	-.01	
		2	Some	35	34	819	31	68	28	8,018	32								
		3	Quite a bit	43	42	1,022	38	91	37	9,229	36								
		4	Very much	18	18	594	22	63	26	5,773	23								
		Total	102	100	2,681	100	247	100	25,453	100									
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	3	3	209	8	16	7	2,136	8	2.9	2.7 *	.23	2.8	.15	2.7 **	.27	
		2	Some	27	26	844	32	75	30	8,253	32								
		3	Quite a bit	45	44	1,058	39	94	38	9,981	39								
		4	Very much	27	26	568	21	61	25	5,028	20								
		Total	102	100	2,679	100	246	100	25,398	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Your first-year students compared with						
												Tennessee Tech	Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
6. During the current school year, about how often have you done the following?																		
a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	QRconclude	1	Never	8	8	160	6	15	6	1,562	6	2.7	2.8	-.16	2.9 *	-.25	2.8	-.16
		2	Sometimes	34	33	837	31	66	27	7,574	30							
		3	Often	45	44	1,093	41	103	42	10,856	43							
		4	Very often	15	15	594	22	63	26	5,424	21							
		Total	102	100	2,684	100	247	100	25,416	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	25	25	528	20	39	16	5,135	20	2.1	2.3 *	-.22	2.5 **	-.36	2.3 *	-.20
		2	Sometimes	46	45	1,068	40	93	38	10,036	39							
		3	Often	23	23	726	27	72	29	7,195	28							
		4	Very often	8	8	360	13	41	17	3,052	12							
		Total	102	100	2,682	100	245	100	25,418	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	19	19	429	16	51	21	3,785	15	2.2	2.4 *	-.20	2.3	-.14	2.4 *	-.21
		2	Sometimes	46	46	1,107	41	92	37	10,636	42							
		3	Often	28	28	832	31	73	30	8,205	32							
		4	Very often	6	6	316	12	31	13	2,814	11							
		Total	99	100	2,684	100	247	100	25,440	100								
7. During the current school year, about how many papers, reports, or other writing tasks of the following lengths have you been assigned? (Include those not yet completed.)																		
a. Up to 5 pages	wrshortnum  (Recoded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	0	None	16	16	162	6	33	13	1,815	7	4.3	6.4 ***	-.37	5.0	-.15	6.1 ***	-.32
		1.5	1-2	27	26	541	20	57	23	5,623	22							
		4	3-5	32	31	924	34	82	33	8,365	33							
		8	6-10	18	18	599	22	46	19	5,474	22							
		13	11-15	7	7	202	8	13	5	2,095	8							
		18	16-20	2	2	119	4	8	3	920	4							
		23	More than 20	0	0	134	5	6	2	1,099	4							
		Total	102	100	2,681	100	245	100	25,391	100								
b. Between 6 and 10 pages	wrmednum  (Recoded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	0	None	62	61	1,061	40	140	58	9,894	39	.9	2.0 ***	-.36	1.4	-.18	2.0 ***	-.35
		1.5	1-2	31	30	956	36	61	25	9,594	38							
		4	3-5	6	6	404	15	27	11	3,735	15							
		8	6-10	3	3	155	6	8	3	1,377	5							
		13	11-15	0	0	37	1	3	1	349	1							
		18	16-20	0	0	14	1	0	0	90	0							
		23	More than 20	0	0	12	0	1	0	129	1							
		Total	102	100	2,639	100	240	100	25,168	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
c. 11 pages or more	wrlongnum	0	None	96	94	2,037	77	213	88	19,219	77	.1	.9 *** ▼	-.29	.7 ** ▼	-.23	.8 *** ▼	-.28	
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	5	5	377	14	15	6	4,041	16								
		4	3-5	1	1	116	4	5	2	819	3								
		8	6-10	0	0	53	2	2	1	502	2								
		13	11-15	0	0	31	1	3	1	258	1								
		18	16-20	0	0	8	0	0	0	74	0								
		23	More than 20	0	0	15	1	3	1	115	0								
		Total			102	100	2,637	100	241	100	25,028								100
Estimated number of assigned pages of student writing.	wrpages	(Continuous variable, recoded and summed by NSSE from wrshort, wrmed, and wrlong. Values are estimated pages of assigned writing.)										22.0	47.7 *** ▼	-.40	33.9 * ▼	-.22	45.7 *** ▼	-.38	
8. During the current school year, about how often have you had discussions with people from the following groups?																			
a. People of a race or ethnicity other than your own	DDrace	1	Never	2	2	144	5	12	5	1,250	5	3.0	3.0	.00	3.1	-.14	3.0	-.05	
		2	Sometimes	30	29	685	25	51	21	6,250	25								
		3	Often	36	35	876	33	79	32	8,214	32								
		4	Very often	34	33	982	37	106	43	9,795	38								
		Total			102	100	2,687	100	248	100	25,509								100
b. People from an economic background other than your own	DDeconomic	1	Never	1	1	141	5	14	6	1,201	5	3.1	3.0	.12	3.1	.01	3.0	.08	
		2	Sometimes	23	23	684	25	55	22	6,021	24								
		3	Often	44	43	949	35	76	31	9,345	37								
		4	Very often	34	33	909	34	102	41	8,891	35								
		Total			102	100	2,683	100	247	100	25,458								100
c. People with religious beliefs other than your own	DDreligion	1	Never	3	3	185	7	13	5	1,786	7	2.9	2.9	.02	3.0	-.05	3.0	-.03	
		2	Sometimes	31	30	757	28	74	30	6,433	25								
		3	Often	38	37	862	32	67	27	8,201	32								
		4	Very often	30	29	885	33	94	38	9,055	36								
		Total			102	100	2,689	100	248	100	25,475								100
d. People with political views other than your own	DDpolitical	1	Never	3	3	181	7	15	6	1,517	6	3.0	2.9	.10	3.0	.03	3.0	.07	
		2	Sometimes	27	26	712	26	64	26	6,774	27								
		3	Often	37	36	908	34	77	31	8,469	33								
		4	Very often	35	34	887	33	91	37	8,727	34								
		Total			102	100	2,688	100	247	100	25,487								100

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
										NSSE 2016 & 2017				Your first-year students compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
9. During the current school year, about how often have you done the following?																			
a. Identified key information from reading assignments	LSreading	1	Never	3	3	77	3	7	3	639	3	2.9	2.9	-.03	3.0	-.17	2.9	-.06	
		2	Sometimes	28	27	692	26	55	22	6,425	25								
		3	Often	48	47	1,290	48	109	44	12,352	48								
		4	Very often	23	23	629	23	76	31	6,067	24								
		Total	102	100	2,688	100	247	100	25,483	100									
b. Reviewed your notes after class	LSnotes	1	Never	4	4	115	4	11	4	1,402	6	3.0	2.9	.16	3.1	-.08	2.8 *	.21	
		2	Sometimes	27	26	875	33	59	24	8,385	33								
		3	Often	36	35	952	36	78	32	9,191	36								
		4	Very often	35	34	736	27	99	40	6,503	26								
		Total	102	100	2,678	100	247	100	25,481	100									
c. Summarized what you learned in class or from course materials	LSsummary	1	Never	5	5	195	7	11	5	1,794	7	2.8	2.7	.10	2.9	-.08	2.7	.12	
		2	Sometimes	27	27	878	33	75	31	8,781	35								
		3	Often	50	50	1,035	39	88	36	9,704	38								
		4	Very often	19	19	564	21	70	29	5,134	20								
		Total	101	100	2,672	100	244	100	25,413	100									
10. During the current school year, to what extent have your courses challenged you to do your best work?																			
challenge		1	Not at all	1	1	30	1	4	2	234	1	5.5	5.4	.08	5.6	-.10	5.4	.02	
		2		1	1	39	1	3	1	336	1								
		3		1	1	137	5	8	3	1,145	4								
		4		12	12	319	12	21	9	2,811	11								
		5		36	35	903	34	76	31	8,157	32								
		6		34	33	712	27	65	26	7,258	29								
		7	Very much	17	17	543	20	70	28	5,525	22								
		Total	102	100	2,683	100	247	100	25,466	100									
11. Which of the following have you done or do you plan to do before you graduate? <sup>o</sup>																			
a. Participate in an internship, co-op, field experience, student teaching, or clinical placement	intern	Have not decided		8	8	268	10	26	11	2,462	10	3%	7%	-.18	9%	-.24	8%	-.21	
		Do not plan to do		6	6	120	4	8	3	1,032	4								
		Plan to do		83	83	2,120	79	192	78	20,054	79								
		Done or in progress		3	3	183	7	21	9	1,962	8								
		Total		100	100	2,691	100	247	100	25,510	100								
(Means indicate the percentage who responded "Done or in progress.")																			



# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering Tennessee Technological University

### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering			Frequency Distributions								Statistical Comparisons <sup>k</sup>							
									NSSE 2016 & 2017				Your first-year students compared with					
			Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
b. Hold a formal leadership role in a student organization or group	leader		Have not decided	26	25	768	29	67	27	6,898	27	3%	10% *	- .30	11% *	- .34	11% **	- .33
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	27	26	654	24	61	25	5,689	22								
	Plan to do	46	45	992	37	92	37	10,060	39									
	Done or in progress	3	3	273	10	28	11	2,827	11									
	Total	102	100	2,687	100	248	100	25,474	100									
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	learncom		Have not decided	38	37	905	34	72	29	8,097	32	5%	13% *	- .30	25% ***	- .60	15% **	- .34
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	27	26	710	27	58	23	7,245	28								
	Plan to do	32	31	707	26	56	23	6,368	25									
	Done or in progress	5	5	357	13	62	25	3,740	15									
	Total	102	100	2,679	100	248	100	25,450	100									
d. Participate in a study abroad program	abroad		Have not decided	30	29	844	31	71	29	7,333	29	1%	3%	- .12	2%	- .11	3%	- .15
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	51	50	903	34	82	33	8,275	32								
	Plan to do	20	20	871	32	89	36	9,111	36									
	Done or in progress	1	1	69	3	6	2	748	3									
	Total	102	100	2,687	100	248	100	25,467	100									
e. Work with a faculty member on a research project	research		Have not decided	43	42	1,123	42	101	41	9,667	38	4%	4%	.02	7%	- .13	5%	- .06
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	19	19	470	18	45	18	3,979	16								
	Plan to do	36	35	995	37	85	34	10,507	41									
	Done or in progress	4	4	97	4	17	7	1,293	5									
	Total	102	100	2,685	100	248	100	25,446	100									
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone		Have not decided	33	32	794	30	78	32	6,873	27	1%	2%	- .08	3%	- .14	2%	- .08
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	4	4	242	9	16	6	1,861	7								
	Plan to do	64	63	1,596	59	146	59	16,239	64									
	Done or in progress	1	1	53	2	7	3	479	2									
	Total	102	100	2,685	100	247	100	25,452	100									
12. About how many of your courses at this institution have included a community-based project (service-learning)?																		
	servcourse	1	None	64	63	1,353	51	81	33	13,690	54	1.4	1.6 ***	- .28	1.8 ***	- .63	1.6 **	- .22
		2	Some	35	34	1,102	41	138	56	9,771	38							
		3	Most	3	3	181	7	25	10	1,586	6							
		4	All	0	0	42	2	3	1	371	1							
		Total		102	100	2,678	100	247	100	25,418	100							

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Your first-year students compared with						
												Tennessee Tech	Carnegie Class	THEC Peer Group	NSSE 2016 & 2017			
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
13. Indicate the quality of your interactions with the following people at your institution.																		
a. Students	QIstudent	1	Poor	1	1	41	2	2	1	337	1	5.4	5.4	.01	5.5	-.08	5.5	-.05
		2	3	3	55	2	6	2	457	2								
		3	1	1	130	5	12	5	1,188	5								
		4	17	17	346	13	25	10	2,869	11								
		5	27	26	736	27	63	26	6,669	26								
		6	31	30	718	27	70	28	7,207	28								
		7	Excellent	22	22	646	24	67	27	6,574	26							
		—	Not applicable	0	0	19	1	2	1	221	1							
		Total	102	100	2,691	100	247	100	25,522	100								
b. Academic advisors	QIadvisor	1	Poor	3	3	73	3	8	3	797	3	5.5	5.3	.10	5.1 *	.24	5.2	.19
		2	6	6	110	4	10	4	1,148	5								
		3	5	5	192	7	28	11	1,916	8								
		4	12	12	349	13	40	16	3,560	14								
		5	13	13	514	19	40	16	5,339	21								
		6	24	24	588	22	54	22	5,457	21								
		7	Excellent	39	38	809	30	62	25	6,618	26							
		—	Not applicable	0	0	53	2	6	2	661	3							
		Total	102	100	2,688	100	248	100	25,496	100								
c. Faculty	QIfaculty	1	Poor	1	1	45	2	5	2	406	2	5.5	5.2	.17	5.3	.16	5.3	.15
		2	2	2	91	3	10	4	703	3								
		3	5	5	159	6	19	8	1,526	6								
		4	10	10	392	15	32	13	3,639	14								
		5	23	23	712	27	55	22	6,738	26								
		6	42	41	725	27	68	27	6,957	27								
		7	Excellent	18	18	525	20	57	23	5,170	20							
		—	Not applicable	1	1	34	1	2	1	306	1							
		Total	102	100	2,683	100	248	100	25,445	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Your first-year students compared with						
												Tennessee Tech	Carnegie Class	THEC Peer Group	NSSE 2016 & 2017			
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
d. Student services staff (career services, student activities, housing, etc.)	QIstaff	1	Poor	3	3	100	4	13	5	872	3	5.3	5.1	.16	4.9	.22	5.1	.13
		2		4	4	100	4	13	5	893	4							
		3		5	5	178	7	23	9	1,717	7							
		4		7	7	353	13	30	12	3,401	13							
		5		26	25	586	22	50	20	5,641	22							
		6		33	32	551	21	53	21	5,553	22							
		7	Excellent	19	19	492	18	50	20	4,842	19							
		—	Not applicable	5	5	323	12	15	6	2,531	10							
		Total		102	100	2,683	100	247	100	25,450	100							
e. Other administrative staff and offices (registrar, financial aid, etc.)	QIadmin	1	Poor	3	3	111	4	19	8	973	4	5.1	5.0	.06	4.8	.16	5.0	.04
		2		5	5	130	5	12	5	1,078	4							
		3		6	6	205	8	27	11	1,802	7							
		4		15	15	360	13	26	10	3,678	14							
		5		29	29	604	22	52	21	5,614	22							
		6		22	22	537	20	65	26	5,428	21							
		7	Excellent	20	20	510	19	41	17	4,674	18							
		—	Not applicable	1	1	228	8	6	2	2,236	9							
		Total		101	100	2,685	100	248	100	25,483	100							
14. How much does your institution emphasize the following?																		
a. Spending significant amounts of time studying and on academic work	empstudy	1	Very little	1	1	39	1	2	1	363	1	3.1	3.1	-.05	3.2	-.13	3.2	-.12
		2	Some	16	16	440	16	42	17	3,742	15							
		3	Quite a bit	54	54	1,296	48	106	43	11,808	46							
		4	Very much	29	29	911	34	97	39	9,573	38							
		Total		100	100	2,686	100	247	100	25,486	100							
b. Providing support to help students succeed academically	SEacademic	1	Very little	3	3	82	3	5	2	745	3	3.0	3.1	-.07	3.1	-.16	3.1	-.11
		2	Some	20	20	537	20	52	21	4,669	18							
		3	Quite a bit	50	50	1,179	44	93	38	11,350	45							
		4	Very much	27	27	876	33	95	39	8,638	34							
		Total		100	100	2,674	100	245	100	25,402	100							
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	4	4	132	5	15	6	1,206	5	3.1	3.1	-.01	3.2	-.08	3.1	-.02
		2	Some	21	21	448	17	33	13	4,302	17							
		3	Quite a bit	37	37	1,096	41	94	38	10,179	40							
		4	Very much	39	39	1,009	38	105	43	9,740	38							
		Total		101	100	2,685	100	247	100	25,427	100							

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech	Carnegie Class	THEC Peer Group	NSSE 2016 & 2017	Tennessee Tech	Your first-year students compared with									
									Carnegie Class	THEC Peer Group	NSSE 2016 & 2017							
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
d. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	13	13	303	11	27	11	2,763	11	2.6	2.7	-.11	2.8	-.16	2.7	-.15
		2	Some	29	29	781	29	73	30	7,274	29							
		3	Quite a bit	44	44	982	37	81	33	9,104	36							
		4	Very much	15	15	614	23	66	27	6,306	25							
		Total	101	100	2,680	100	247	100	25,447	100								
e. Providing opportunities to be involved socially	SEsocial	1	Very little	3	3	170	6	16	7	1,452	6	2.9	2.9	-.06	3.0	-.13	2.9	-.08
		2	Some	27	27	628	23	55	23	5,981	24							
		3	Quite a bit	50	50	1,123	42	89	36	10,581	42							
		4	Very much	20	20	756	28	84	34	7,420	29							
		Total	100	100	2,677	100	244	100	25,434	100								
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	6	6	202	8	22	9	1,609	6	2.9	2.9	-.05	3.0	-.11	2.9	-.09
		2	Some	28	28	618	23	49	20	5,775	23							
		3	Quite a bit	40	40	1,084	40	91	37	10,516	41							
		4	Very much	26	26	774	29	84	34	7,510	30							
		Total	100	100	2,678	100	246	100	25,410	100								
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	27	27	568	21	46	19	5,227	21	2.2	2.3	-.10	2.4	-.20	2.3	-.11
		2	Some	34	34	987	37	90	37	9,676	38							
		3	Quite a bit	28	28	806	30	63	26	7,277	29							
		4	Very much	11	11	317	12	43	18	3,261	13							
		Total	100	100	2,678	100	242	100	25,441	100								
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	8	8	279	10	21	9	2,332	9	2.7	2.7	-.08	2.9 *	-.24	2.8	-.12
		2	Some	36	36	725	27	60	24	6,996	28							
		3	Quite a bit	37	37	1,063	40	88	36	10,067	40							
		4	Very much	19	19	608	23	76	31	6,026	24							
		Total	100	100	2,675	100	245	100	25,421	100								
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	17	17	452	17	45	19	3,841	15	2.4	2.4	-.07	2.5	-.13	2.5	-.12
		2	Some	40	40	978	37	76	31	9,154	36							
		3	Quite a bit	31	31	834	31	74	31	8,426	33							
		4	Very much	12	12	410	15	47	19	3,987	16							
		Total	100	100	2,674	100	242	100	25,408	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech	Carnegie Class	THEC Peer Group	NSSE 2016 & 2017	Tennessee Tech	Your first-year students compared with									
									Carnegie Class	THEC Peer Group	NSSE 2016 & 2017							
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
15. About how many hours do you spend in a typical 7-day week doing the following?																		
a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	tmprephrs	0	0 hrs	1	1	10	0	3	1	111	0	15.3	15.5	-.03	15.4	-.01	16.5	-.14
	(Recoded version of tmprep created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	9	9	305	11	27	11	2,270	9							
	8	6-10 hrs	24	24	562	21	63	26	4,778	19								
	13	11-15 hrs	21	21	564	21	43	17	5,356	21								
	18	16-20 hrs	21	21	526	20	44	18	5,173	20								
	23	21-25 hrs	11	11	335	12	24	10	3,543	14								
	28	26-30 hrs	8	8	176	7	20	8	1,988	8								
	33	More than 30 hrs	6	6	210	8	23	9	2,280	9								
	Total	101	100	2,688	100	247	100	25,499	100									
b. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	tmcocurrhrs	0	0 hrs	28	28	913	34	84	34	7,484	29	5.6	5.5	.02	5.8	-.02	5.7	-.02
	(Recoded version of tmcocurr created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	38	38	859	32	82	33	8,728	34							
	8	6-10 hrs	19	19	419	16	30	12	4,404	17								
	13	11-15 hrs	7	7	239	9	22	9	2,430	10								
	18	16-20 hrs	2	2	127	5	12	5	1,252	5								
	23	21-25 hrs	2	2	54	2	5	2	606	2								
	28	26-30 hrs	2	2	26	1	4	2	209	1								
	33	More than 30 hrs	2	2	44	2	6	2	322	1								
	Total	100	100	2,681	100	245	100	25,435	100									
c. Working for pay on campus	tmworkonhrs	0	0 hrs	77	76	2,168	81	209	85	20,183	79	2.3	2.3	-.01	2.1	.04	2.4	-.03
	(Recoded version of tmworkon created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	7	7	88	3	7	3	947	4							
	8	6-10 hrs	10	10	152	6	8	3	1,733	7								
	13	11-15 hrs	2	2	122	5	7	3	1,225	5								
	18	16-20 hrs	4	4	104	4	10	4	865	3								
	23	21-25 hrs	0	0	30	1	4	2	254	1								
	28	26-30 hrs	0	0	6	0	0	0	65	0								
	33	More than 30 hrs	1	1	14	1	2	1	195	1								
	Total	101	100	2,684	100	247	100	25,467	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>									
						Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with					
																Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>			
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	83	82	1,961	73	186	75	19,489	77	2.7	4.6 *	-.21	4.7 *	-.22	3.8	-.13			
	(Recoded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	3	3	106	4	7	3	959	4										
		8	6-10 hrs	4	4	122	5	7	3	1,070	4										
		13	11-15 hrs	4	4	114	4	10	4	1,004	4										
		18	16-20 hrs	2	2	115	4	11	4	1,028	4										
		23	21-25 hrs	1	1	89	3	9	4	698	3										
		28	26-30 hrs	2	2	51	2	4	2	336	1										
		33	More than 30 hrs	2	2	125	5	13	5	873	3										
			Total	101	100	2,683	100	247	100	25,457	100										
Estimated number of hours working for pay	tmworkhrs											5.0	7.0 *	-.18	6.7	-.16	6.2	-.12			
(Continuous variable created by NSSE)																					
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	53	53	1,672	62	125	51	16,150	64	2.7	2.2	.10	2.6	.02	2.0	.14			
	(Recoded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	34	34	722	27	92	37	6,838	27										
		8	6-10 hrs	8	8	135	5	18	7	1,186	5										
		13	11-15 hrs	1	1	73	3	5	2	591	2										
		18	16-20 hrs	2	2	42	2	4	2	340	1										
		23	21-25 hrs	1	1	16	1	2	1	170	1										
		28	26-30 hrs	1	1	6	0	0	0	42	0										
		33	More than 30 hrs	0	0	13	0	1	0	97	0										
			Total	100	100	2,679	100	247	100	25,414	100										
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	3	3	59	2	5	2	489	2	12.5	13.2	-.08	13.0	-.05	12.8	-.03			
	(Recoded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	16	16	518	19	57	23	4,937	19										
		8	6-10 hrs	32	32	651	24	56	23	6,732	26										
		13	11-15 hrs	23	23	557	21	44	18	5,425	21										
		18	16-20 hrs	11	11	389	15	36	15	3,548	14										
		23	21-25 hrs	6	6	173	6	14	6	1,670	7										
		28	26-30 hrs	2	2	90	3	7	3	767	3										
		33	More than 30 hrs	8	8	238	9	24	10	1,877	7										
			Total	101	100	2,675	100	243	100	25,445	100										

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
										NSSE 2016 & 2017				Your first-year students compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
g. Providing care for dependents (children, parents, etc.)	tmcarehrs	0	0 hrs	88	88	2,104	79	205	83	20,685	81	1.2	2.3 *	-1.8	1.9	-.13	2.0	-1.4	
	(Recoded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	5	5	254	9	14	6	2,068	8								
		8	6-10 hrs	4	4	104	4	12	5	913	4								
		13	11-15 hrs	0	0	70	3	6	2	620	2								
		18	16-20 hrs	2	2	44	2	3	1	390	2								
		23	21-25 hrs	0	0	27	1	0	0	213	1								
		28	26-30 hrs	0	0	8	0	1	0	80	0								
		33	More than 30 hrs	1	1	64	2	5	2	425	2								
		Total		100	100	2,675	100	246	100	25,394	100								
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	52	51	1,127	42	94	39	10,929	43	2.7	3.8	-1.9	3.4	-.13	3.7	-1.7	
	(Recoded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	39	39	965	36	107	44	9,183	36								
		8	6-10 hrs	5	5	345	13	28	11	3,099	12								
		13	11-15 hrs	1	1	121	5	5	2	1,141	4								
		18	16-20 hrs	1	1	48	2	5	2	504	2								
		23	21-25 hrs	1	1	26	1	3	1	243	1								
		28	26-30 hrs	0	0	17	1	0	0	103	0								
		33	More than 30 hrs	2	2	35	1	2	1	275	1								
		Total		101	100	2,684	100	244	100	25,477	100								
16. Of the time you spend preparing for class in a typical 7-day week, about how much is on assigned reading?																			
reading		1	Very little	28	28	559	21	76	31	5,016	20	2.1	2.3 **	-2.7	2.1	-.08	2.4 ***	-3.0	
	2	Some	47	47	1,123	42	95	38	10,699	42									
	3	About half	18	18	623	23	49	20	6,023	24									
	4	Most	8	8	288	11	20	8	2,841	11									
	5	Almost all	0	0	91	3	7	3	889	3									
			Total	101	100	2,684	100	247	100	25,468	100								
tmreadinghrs												4.7	5.5	-1.7	4.8	-.02	6.0 **	-2.5	
(Continuous variable created by NSSE. Calculated as a proportion of tmprphrs based on reading, where Very little=.10; Some=.25; About half=.50; Most=.75; Almost all=.90)																			

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
						NSSE 2016 & 2017						Your first-year students compared with						
						Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
	tmreadinghrscol	1	0 hrs	1	1	10	0	3	1	109	0							
	(Collapsed version of tmreadinghrs created by NSSE.)	2	More than zero, up to 5 hrs	72	71	1,639	61	173	70	14,225	56							
		3	More than 5, up to 10 hrs	20	20	676	25	45	18	7,161	28							
		4	More than 10, up to 15 hrs	2	2	171	6	13	5	2,004	8							
		5	More than 15, up to 20 hrs	3	3	102	4	6	2	1,056	4							
		6	More than 20, up to 25 hrs	3	3	58	2	5	2	596	2							
		7	More than 25 hrs	0	0	21	1	2	1	236	1							
		Total		101	100	2,677	100	247	100	25,387	100							
17. How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?																		
a. Writing clearly and effectively	pgwrite	1	Very little	19	19	276	10	35	14	3,027	12	2.5	2.7 *	-0.23	2.6	-0.18	2.6	-0.17
		2	Some	32	32	818	30	65	27	8,084	32							
		3	Quite a bit	34	34	1,119	42	99	40	10,019	39							
		4	Very much	16	16	471	18	46	19	4,345	17							
		Total		101	100	2,684	100	245	100	25,475	100							
b. Speaking clearly and effectively	pgspeak	1	Very little	13	13	389	14	37	15	3,994	16	2.5	2.5	-0.06	2.6	-0.09	2.5	-0.02
		2	Some	42	42	890	33	75	30	8,684	34							
		3	Quite a bit	30	30	975	36	90	37	8,864	35							
		4	Very much	16	16	433	16	44	18	3,927	15							
		Total		101	100	2,687	100	246	100	25,469	100							
c. Thinking critically and analytically	pgthink	1	Very little	5	5	109	4	3	1	960	4	3.0	3.0	-0.05	3.3 **	-0.32	3.1	-0.08
		2	Some	23	23	542	20	42	17	4,918	19							
		3	Quite a bit	40	40	1,174	44	90	37	11,176	44							
		4	Very much	33	33	864	32	111	45	8,434	33							
		Total		101	100	2,689	100	246	100	25,488	100							
d. Analyzing numerical and statistical information	pganalyze	1	Very little	6	6	191	7	10	4	1,780	7	2.9	2.9	0.05	3.0	-0.14	2.9	0.01
		2	Some	29	29	695	26	56	23	6,116	24							
		3	Quite a bit	32	32	1,066	40	94	38	10,068	40							
		4	Very much	33	33	734	27	86	35	7,517	30							
		Total		100	100	2,686	100	246	100	25,481	100							



# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
										NSSE 2016 & 2017				Your first-year students compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
e. Acquiring job- or work-related knowledge and skills	pgwork	1	Very little	11	11	333	12	27	11	3,063	12	2.6	2.6	-.02	2.7	-.04	2.7	-.03	
		2	Some	36	36	859	32	81	33	8,125	32								
		3	Quite a bit	34	34	935	35	86	35	8,880	35								
		4	Very much	20	20	558	21	52	21	5,425	21								
		Total		101	100	2,685	100	246	100	25,493	100								
f. Working effectively with others	pgothers	1	Very little	7	7	191	7	16	7	1,761	7	2.8	2.8	.03	2.9	-.14	2.8	.00	
		2	Some	24	24	783	29	60	24	7,248	28								
		3	Quite a bit	50	50	1,089	41	91	37	10,297	40								
		4	Very much	20	20	624	23	78	32	6,179	24								
		Total		101	100	2,687	100	245	100	25,485	100								
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	16	16	371	14	33	13	3,704	15	2.5	2.6	-.08	2.7	-.14	2.6	-.09	
		2	Some	35	34	864	32	71	29	7,845	31								
		3	Quite a bit	33	32	935	35	89	36	8,782	34								
		4	Very much	18	18	513	19	53	22	5,152	20								
		Total		102	100	2,683	100	246	100	25,483	100								
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	14	14	359	13	34	14	3,377	13	2.5	2.6	-.12	2.7	-.23	2.6	-.12	
		2	Some	37	36	852	32	66	27	8,023	31								
		3	Quite a bit	36	35	911	34	78	32	8,776	34								
		4	Very much	15	15	558	21	68	28	5,301	21								
		Total		102	100	2,680	100	246	100	25,477	100								
i. Solving complex real-world problems	pgprobsolve	1	Very little	15	15	292	11	21	9	2,831	11	2.6	2.7	-.10	2.9 *	-.27	2.7	-.08	
		2	Some	35	34	831	31	64	26	7,999	31								
		3	Quite a bit	28	27	982	37	91	37	9,258	36								
		4	Very much	24	24	578	22	70	28	5,399	21								
		Total		102	100	2,683	100	246	100	25,487	100								
j. Being an informed and active citizen	pgcitizen	1	Very little	21	21	427	16	39	16	3,863	15	2.3	2.5	-.18	2.5 *	-.24	2.5 *	-.21	
		2	Some	42	41	964	36	78	32	8,860	35								
		3	Quite a bit	25	25	842	32	77	32	8,445	33								
		4	Very much	14	14	440	16	47	20	4,245	17								
		Total		102	100	2,673	100	241	100	25,413	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### First-Year Students<sup>a</sup> in Engineering

First-Year Students <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>								
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your first-year students compared with						
Item wording or description		Variable name <sup>l</sup>												Values <sup>m</sup>		Response options		Carnegie Class		THEC Peer Group
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>		
18. How would you evaluate your entire educational experience at this institution?																				
evalexp				1	Poor	3	3	72	3	3	1	549	2	3.2	3.2	.09	3.3	-.04	3.2	.03
				2	Fair	9	9	366	14	31	13	3,175	12							
				3	Good	51	50	1,304	48	112	46	12,313	48							
				4	Excellent	38	38	947	35	99	40	9,479	37							
				Total		101	100	2,689	100	245	100	25,516	100							
19. If you could start over again, would you go to the same institution you are now attending?																				
sameinst				1	Definitely no	2	2	106	4	6	2	846	3	3.4	3.2 *	.26	3.3	.17	3.2 *	.20
				2	Probably no	6	6	333	12	36	15	2,866	11							
				3	Probably yes	44	43	1,203	45	93	38	11,121	44							
				4	Definitely yes	50	49	1,050	39	112	45	10,693	42							
				Total		102	100	2,692	100	247	100	25,526	100							

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your seniors compared with					
														Carnegie Class	THEC Peer Group	NSSE 2016 & 2017			
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
1. During the current school year, about how often have you done the following?																			
a. Asked questions or contributed to course discussions in other ways	askquest	1	Never	6	4	119	4	7	2	1,250	4	2.8	2.9	-.11	3.1 *	-.25	2.9	-.03	
		2	Sometimes	46	33	1,026	31	79	28	10,402	34								
		3	Often	52	37	1,114	34	86	30	10,130	33								
		4	Very often	36	26	1,052	32	110	39	9,003	29								
		Total	140	100	3,311	100	282	100	30,785	100									
b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	36	26	812	25	45	16	7,853	26	2.3	2.3	-.01	2.6 **	-.30	2.2	.02	
		2	Sometimes	49	35	1,226	37	91	33	11,493	37								
		3	Often	36	26	790	24	79	28	7,300	24								
		4	Very often	19	14	472	14	63	23	4,081	13								
		Total	140	100	3,300	100	278	100	30,727	100									
c. Come to class without completing readings or assignments	unpreparedr (Reverse-coded version of unprepared created by NSSE.)	1	Very often	5	4	194	6	21	7	2,041	7	3.1	3.0	.09	3.0	.12	2.9 *	.18	
		2	Often	16	11	443	13	28	10	5,027	16								
		3	Sometimes	82	59	1,808	55	166	59	16,630	54								
		4	Never	37	26	864	26	66	23	7,048	23								
		Total	140	100	3,309	100	281	100	30,746	100									
d. Attended an art exhibit, play, or other arts performance (dance, music, etc.)	attendart	1	Never	69	50	1,735	52	148	53	14,662	48	1.7	1.6	.11	1.7	.06	1.7	.02	
		2	Sometimes	49	35	1,139	34	91	33	11,533	37								
		3	Often	10	7	309	9	23	8	3,211	10								
		4	Very often	11	8	128	4	18	6	1,372	4								
		Total	139	100	3,311	100	280	100	30,778	100									
e. Asked another student to help you understand course material	CLaskhelp	1	Never	6	4	412	12	20	7	2,839	9	2.7	2.6	.16	2.7	-.03	2.7	.04	
		2	Sometimes	59	42	1,241	37	95	34	11,026	36								
		3	Often	44	31	1,026	31	105	37	10,055	33								
		4	Very often	31	22	636	19	61	22	6,875	22								
		Total	140	100	3,315	100	281	100	30,795	100									
f. Explained course material to one or more students	CLexplain	1	Never	5	4	160	5	4	1	1,001	3	3.0	2.9	.13	3.1	-.15	2.9	.04	
		2	Sometimes	33	24	1,012	31	67	24	8,697	28								
		3	Often	63	45	1,272	38	110	39	12,357	40								
		4	Very often	39	28	867	26	100	36	8,745	28								
		Total	140	100	3,311	100	281	100	30,800	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
						NSSE 2016 & 2017						Your seniors compared with						
						Tennessee Tech	Carnegie Class	THEC Peer Group		2017		Tennessee Tech	Carnegie Class	THEC Peer Group		NSSE 2016 & 2017		
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
g. Prepared for exams by discussing or working through course material with other students	CLstudy	1	Never	15	11	547	16	29	10	4,123	13	2.9	2.6 ** ▲	.26	2.8	.02	2.7	.16
		2	Sometimes	37	27	1,020	31	79	28	9,159	30							
		3	Often	38	27	938	28	80	28	9,129	30							
		4	Very often	49	35	812	24	94	33	8,374	27							
		Total	139	100	3,317	100	282	100	30,785	100								
h. Worked with other students on course projects or assignments	CLproject	1	Never	4	3	149	4	6	2	1,177	4	3.3	3.1 ** ▲	.24	3.3	.06	3.1 * ▲	.20
		2	Sometimes	23	17	709	21	55	20	6,096	20							
		3	Often	38	27	1,124	34	79	28	10,806	35							
		4	Very often	74	53	1,330	40	140	50	12,715	41							
		Total	139	100	3,312	100	280	100	30,794	100								
i. Given a course presentation	present	1	Never	22	16	482	15	20	7	3,634	12	2.4	2.6 * ▼	-.18	2.9 *** ▼	-.49	2.6 ** ▼	-.22
		2	Sometimes	54	39	1,118	34	88	31	10,734	35							
		3	Often	45	32	966	29	76	27	9,574	31							
		4	Very often	18	13	749	23	96	34	6,845	22							
		Total	139	100	3,315	100	280	100	30,787	100								
2. During the current school year, about how often have you done the following?																		
a. Combined ideas from different courses when completing assignments	RIintegrate	1	Never	2	1	124	4	11	4	976	3	3.0	2.9	.15	3.0	.09	2.9	.13
		2	Sometimes	32	23	938	28	76	27	8,794	29							
		3	Often	66	47	1,390	42	109	39	12,904	42							
		4	Very often	39	28	858	26	84	30	8,093	26							
		Total	139	100	3,310	100	280	100	30,767	100								
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	21	15	507	15	37	13	4,495	15	2.4	2.4	-.03	2.5	-.08	2.4	-.03
		2	Sometimes	59	42	1,399	42	124	44	13,519	44							
		3	Often	45	32	978	30	75	27	8,710	28							
		4	Very often	14	10	428	13	44	16	4,023	13							
		Total	139	100	3,312	100	280	100	30,747	100								
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIdiverse	1	Never	47	34	951	29	78	28	9,160	30	1.9	2.1 ** ▼	-.23	2.1 * ▼	-.26	2.1 * ▼	-.20
		2	Sometimes	67	48	1,367	41	119	43	13,061	42							
		3	Often	19	14	714	22	55	20	5,984	19							
		4	Very often	6	4	281	8	27	10	2,540	8							
		Total	139	100	3,313	100	279	100	30,745	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your seniors compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	15	11	286	9	16	6	2,607	8	2.5	2.6 *	-.21	2.7 **	-.33	2.6 *	-.19	
		2	Sometimes	60	43	1,173	35	96	34	11,329	37								
		3	Often	49	35	1,296	39	113	40	11,959	39								
		4	Very often	15	11	552	17	55	20	4,856	16								
		Total	139	100	3,307	100	280	100	30,751	100									
e. Tried to better understand someone else's views by imagining how an issue looks from their perspective	RIperspect	1	Never	7	5	197	6	8	3	1,856	6	2.6	2.8 *	-.17	2.8 *	-.23	2.8	-.16	
		2	Sometimes	57	41	1,030	31	95	34	9,804	32								
		3	Often	55	40	1,382	42	116	42	12,643	41								
		4	Very often	20	14	698	21	60	22	6,432	21								
		Total	139	100	3,307	100	279	100	30,735	100									
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	6	4	122	4	9	3	1,009	3	2.7	2.8	-.13	2.8	-.19	2.8	-.16	
		2	Sometimes	50	36	1,084	33	87	31	9,887	32								
		3	Often	64	46	1,451	44	123	44	13,451	44								
		4	Very often	19	14	651	20	61	22	6,376	21								
		Total	139	100	3,308	100	280	100	30,723	100									
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	2	1	50	2	7	3	482	2	3.1	3.1	-.01	3.1	.01	3.1	.00	
		2	Sometimes	30	22	686	21	59	21	6,267	20								
		3	Often	62	45	1,521	46	122	44	14,445	47								
		4	Very often	44	32	1,047	32	92	33	9,506	31								
		Total	138	100	3,304	100	280	100	30,700	100									
3. During the current school year, about how often have you done the following?																			
a. Talked about career plans with a faculty member	SFcareer	1	Never	30	22	795	24	50	18	6,954	23	2.3	2.2	.04	2.4	-.13	2.3	.03	
		2	Sometimes	57	41	1,364	41	113	40	12,996	42								
		3	Often	32	23	674	20	72	26	6,671	22								
		4	Very often	19	14	473	14	47	17	4,115	13								
		Total	138	100	3,306	100	282	100	30,736	100									
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	54	39	1,529	46	122	43	13,060	43	2.0	1.9	.15	2.0	.04	1.9	.09	
		2	Sometimes	44	32	982	30	78	28	9,671	31								
		3	Often	25	18	474	14	47	17	4,957	16								
		4	Very often	16	12	314	10	35	12	3,035	10								
		Total	139	100	3,299	100	282	100	30,723	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
						NSSE 2016 & 2017						Your seniors compared with							
				Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
c. Discussed course topics, ideas, or concepts with a faculty member outside of class	SFdiscuss	1	Never	24	18	902	27	53	19	7,565	25	2.4	2.2 *	.21	2.4	-.04	2.2 *	.19	
		2	Sometimes	62	45	1,326	40	118	42	13,289	43								
		3	Often	30	22	735	22	58	21	6,720	22								
		4	Very often	21	15	339	10	52	19	3,113	10								
		Total	137	100	3,302	100	281	100	30,687	100									
d. Discussed your academic performance with a faculty member	SFperform	1	Never	42	30	905	27	57	20	8,537	28	2.1	2.1	.04	2.3	-.13	2.1	.08	
		2	Sometimes	51	37	1,488	45	134	48	14,125	46								
		3	Often	30	22	591	18	54	19	5,592	18								
		4	Very often	15	11	317	10	37	13	2,428	8								
		Total	138	100	3,301	100	282	100	30,682	100									
4. During the current school year, how much has your coursework emphasized the following?																			
a. Memorizing course material	memorize	1	Very little	15	11	295	9	33	12	2,961	10	2.5	2.6	-.13	2.5	-.03	2.6	-.08	
		2	Some	58	42	1,253	38	113	41	12,001	39								
		3	Quite a bit	48	35	1,239	37	86	31	11,150	36								
		4	Very much	18	13	530	16	47	17	4,654	15								
		Total	139	100	3,317	100	279	100	30,766	100									
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	3	2	99	3	5	2	722	2	3.2	3.2	.11	3.3	-.08	3.2	.06	
		2	Some	24	17	548	17	43	15	4,787	16								
		3	Quite a bit	47	34	1,386	42	91	33	12,858	42								
		4	Very much	64	46	1,280	39	140	50	12,378	40								
		Total	138	100	3,313	100	279	100	30,745	100									
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	9	6	146	4	13	5	1,411	5	3.0	3.0	-.01	3.2	-.15	3.0	.00	
		2	Some	32	23	699	21	50	18	6,537	21								
		3	Quite a bit	44	32	1,359	41	93	33	12,513	41								
		4	Very much	54	39	1,102	33	122	44	10,248	33								
		Total	139	100	3,306	100	278	100	30,709	100									
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	29	21	367	11	30	11	4,061	13	2.3	2.7 ***	-.38	2.7 ***	-.42	2.6 ***	-.29	
		2	Some	57	41	1,084	33	94	34	10,506	34								
		3	Quite a bit	34	24	1,155	35	81	29	10,457	34								
		4	Very much	19	14	703	21	75	27	5,699	19								
		Total	139	100	3,309	100	280	100	30,723	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your seniors compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
e. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	13	9	228	7	16	6	2,147	7	2.7	2.8 *	-.18	2.9 **	-.31	2.8	-.16	
		2	Some	47	34	930	28	76	27	8,799	29								
		3	Quite a bit	52	37	1,334	40	96	34	12,600	41								
		4	Very much	27	19	816	25	93	33	7,170	23								
		Total	139	100	3,308	100	281	100	30,716	100									
5. During the current school year, to what extent have your instructors done the following?																			
a. Clearly explained course goals and requirements	ETgoals	1	Very little	5	4	100	3	9	3	918	3	2.9	3.1 *	-.17	3.2 **	-.33	3.0	-.14	
		2	Some	34	24	688	21	43	15	6,435	21								
		3	Quite a bit	68	49	1,464	44	118	42	14,364	47								
		4	Very much	32	23	1,063	32	111	40	9,064	29								
		Total	139	100	3,315	100	281	100	30,781	100									
b. Taught course sessions in an organized way	ETorganize	1	Very little	5	4	134	4	8	3	1,179	4	3.0	3.0	.04	3.0	-.05	3.0	.03	
		2	Some	31	22	736	22	55	20	6,722	22								
		3	Quite a bit	61	44	1,509	46	135	48	14,376	47								
		4	Very much	42	30	931	28	84	30	8,476	28								
		Total	139	100	3,310	100	282	100	30,753	100									
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	7	5	153	5	12	4	1,189	4	3.1	3.0	.05	3.1	-.09	3.0	.03	
		2	Some	27	20	711	21	47	17	6,331	21								
		3	Quite a bit	54	39	1,353	41	111	39	13,283	43								
		4	Very much	50	36	1,093	33	112	40	9,949	32								
		Total	138	100	3,310	100	282	100	30,752	100									
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	20	14	470	14	40	14	4,748	15	2.5	2.6	-.04	2.6	-.11	2.5	.00	
		2	Some	51	37	1,111	34	87	31	10,707	35								
		3	Quite a bit	42	30	1,116	34	89	32	9,859	32								
		4	Very much	25	18	610	18	64	23	5,394	18								
		Total	138	100	3,307	100	280	100	30,708	100									
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	13	9	311	9	30	11	3,003	10	2.7	2.7	.01	2.7	.01	2.7	.08	
		2	Some	38	28	999	30	78	28	9,951	32								
		3	Quite a bit	58	42	1,271	39	111	40	11,940	39								
		4	Very much	28	20	712	22	62	22	5,728	19								
		Total	137	100	3,293	100	281	100	30,622	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
										NSSE 2016 & 2017				Your seniors compared with					
		Tennessee Tech				Carnegie Class		THEC Peer Group						Tennessee Tech		Carnegie Class		THEC Peer Group	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
6. During the current school year, about how often have you done the following?																			
a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	QRconclude	1	Never	5	4	166	5	10	4	1,417	5	3.1	3.0	.16	3.1	.02	3.0	.15	
		2	Sometimes	24	17	747	23	56	20	7,083	23								
		3	Often	58	42	1,333	40	107	38	12,158	40								
		4	Very often	52	37	1,058	32	108	38	10,019	33								
		Total		139	100	3,304	100	281	100	30,677	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	25	18	688	21	57	20	6,101	20	2.5	2.4	.08	2.5	.02	2.4	.07	
		2	Sometimes	47	34	1,135	34	88	31	10,568	34								
		3	Often	34	25	847	26	77	27	8,238	27								
		4	Very often	31	23	633	19	60	21	5,776	19								
		Total		137	100	3,303	100	282	100	30,683	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	13	9	457	14	31	11	3,903	13	2.6	2.5	.13	2.7	-.02	2.5	.10	
		2	Sometimes	53	38	1,233	37	97	34	11,481	37								
		3	Often	43	31	1,080	33	93	33	10,069	33								
		4	Very often	29	21	539	16	61	22	5,275	17								
		Total		138	100	3,309	100	282	100	30,728	100								
7. During the current school year, about how many papers, reports, or other writing tasks of the following lengths have you been assigned? (Include those not yet completed.)																			
a. Up to 5 pages	wrshortnum	0	None	20	14	313	10	26	9	3,140	10	5.7	6.6	-.15	7.0 *	-.20	6.3	-.11	
	(Recorded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	40	29	740	23	64	23	7,203	24								
		4	3-5	34	24	892	27	70	25	8,607	28								
		8	6-10	23	17	671	21	54	19	5,642	19								
		13	11-15	7	5	284	9	27	10	2,599	9								
		18	16-20	6	4	129	4	12	4	1,285	4								
		23	More than 20	9	6	240	7	25	9	1,972	6								
		Total		139	100	3,269	100	278	100	30,448	100								
b. Between 6 and 10 pages	wrmednum	0	None	51	37	968	30	86	32	9,256	31	3.4	3.5	-.01	4.1	-.12	3.2	.05	
	(Recorded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	35	25	1,016	31	59	22	10,004	33								
		4	3-5	24	17	635	20	58	21	5,957	20								
		8	6-10	18	13	374	12	44	16	3,054	10								
		13	11-15	4	3	126	4	10	4	1,067	4								
		18	16-20	2	1	55	2	4	1	418	1								
		23	More than 20	4	3	69	2	10	4	514	2								
		Total		138	100	3,243	100	271	100	30,270	100								



# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
						NSSE 2016 & 2017								Your seniors compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
c. 11 pages or more	wrlongnum	0	None	61	45	1,534	47	109	40	14,078	46	2.8	2.5	.07	4.1 *	-.23	2.2	.13	
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	34	25	946	29	65	24	9,484	31								
		4	3-5	23	17	351	11	34	12	3,454	11								
		8	6-10	6	4	209	6	34	12	1,788	6								
		13	11-15	7	5	79	2	12	4	745	2								
		18	16-20	4	3	46	1	6	2	307	1								
		23	More than 20	1	1	69	2	15	5	459	2								
		Total	136	100	3,234	100	275	100	30,315	100									
Estimated number of assigned pages of student writing.	wrpages											84.9	83.0	.02	113.4 *	-.22	77.1	.08	
(Continuous variable, recoded and summed by NSSE from wrshort, wrmed, and wrlong. Values are estimated pages of assigned writing.)																			
8. During the current school year, about how often have you had discussions with people from the following groups?																			
a. People of a race or ethnicity other than your own	DDrace	1	Never	12	9	214	6	14	5	1,871	6	3.1	3.1	-.01	3.1	-.06	3.1	.01	
		2	Sometimes	26	19	707	21	60	21	7,273	24								
		3	Often	41	30	1,009	31	86	30	8,952	29								
		4	Very often	59	43	1,373	42	122	43	12,654	41								
		Total	138	100	3,303	100	282	100	30,750	100									
b. People from an economic background other than your own	DDeconomic	1	Never	11	8	210	6	11	4	1,646	5	3.0	3.0	.02	3.1	-.12	3.0	.00	
		2	Sometimes	25	18	744	23	52	18	7,207	23								
		3	Often	51	37	1,141	35	106	38	10,496	34								
		4	Very often	51	37	1,201	36	113	40	11,363	37								
		Total	138	100	3,296	100	282	100	30,712	100									
c. People with religious beliefs other than your own	DDreligion	1	Never	8	6	253	8	16	6	2,227	7	3.1	3.0	.09	3.1	-.03	3.0	.08	
		2	Sometimes	35	25	808	25	65	23	7,660	25								
		3	Often	37	27	1,047	32	79	28	9,432	31								
		4	Very often	58	42	1,184	36	119	43	11,381	37								
		Total	138	100	3,292	100	279	100	30,700	100									
d. People with political views other than your own	DDpolitical	1	Never	8	6	251	8	14	5	1,979	6	3.1	2.9	.11	3.1	-.01	3.0	.11	
		2	Sometimes	32	23	831	25	67	24	8,209	27								
		3	Often	43	31	1,054	32	90	32	9,810	32								
		4	Very often	55	40	1,161	35	111	39	10,709	35								
		Total	138	100	3,297	100	282	100	30,707	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
						NSSE 2016 & 2017								Your seniors compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
9. During the current school year, about how often have you done the following?																			
a. Identified key information from reading assignments	LSreading	1	Never	10	7	154	5	18	6	1,527	5	2.9	2.9	-.06	3.0	-.13	2.9	-.02	
		2	Sometimes	35	26	851	26	62	22	8,210	27								
		3	Often	54	39	1,375	42	106	38	12,981	42								
		4	Very often	38	28	927	28	95	34	8,031	26								
		Total	137	100	3,307	100	281	100	30,749	100									
b. Reviewed your notes after class	LSnotes	1	Never	13	9	275	8	19	7	2,796	9	2.9	2.8	.15	3.0	-.06	2.7 **	.25	
		2	Sometimes	35	25	1,001	30	66	23	10,524	34								
		3	Often	36	26	1,117	34	91	32	10,070	33								
		4	Very often	54	39	908	28	105	37	7,335	24								
		Total	138	100	3,301	100	281	100	30,725	100									
c. Summarized what you learned in class or from course materials	LSsummary	1	Never	15	11	302	9	24	9	3,085	10	2.7	2.7	.00	2.9	-.18	2.7	.07	
		2	Sometimes	43	31	1,075	33	71	25	10,667	35								
		3	Often	46	33	1,181	36	97	35	10,734	35								
		4	Very often	34	25	735	22	88	31	6,149	20								
		Total	138	100	3,293	100	280	100	30,635	100									
10. During the current school year, to what extent have your courses challenged you to do your best work?																			
challenge		1	Not at all	2	1	53	2	3	1	391	1	5.6	5.5	.10	5.7	-.06	5.5	.10	
		2		4	3	73	2	2	1	616	2								
		3		6	4	148	4	10	4	1,443	5								
		4		5	4	357	11	31	11	3,290	11								
		5		44	32	921	28	67	24	8,729	28								
		6		33	24	880	27	76	27	8,426	27								
		7	Very much	43	31	869	26	91	33	7,779	25								
		Total	137	100	3,301	100	280	100	30,674	100									
11. Which of the following have you done or do you plan to do before you graduate? <sup>o</sup>																			
a. Participate in an internship, co-op, field experience, student teaching, or clinical placement	intern	Have not decided	9	7	239	7	13	5	1,977	6	64%	51% **	.26	51% *	.27	54% *	.21		
		Do not plan to do	17	12	452	14	40	14	3,908	13									
		Plan to do	23	17	915	28	85	30	8,321	27									
		Done or in progress	88	64	1,702	51	144	51	16,550	54									
		Total	137	100	3,308	100	282	100	30,756	100									
		(Means indicate the percentage who responded "Done or in progress.")																	

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

			Frequency Distributions								Statistical Comparisons <sup>k</sup>					
											Your seniors compared with					
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech	Carnegie Class	THEC Peer Group	NSSE 2016 & 2017		
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
b. Hold a formal leadership role in a student organization or group	leader (Means indicate the percentage who responded "Done or in progress.")		Have not decided Do not plan to do Plan to do Done or in progress Total	10 66 5 57 138	7 48 4 41 100	370 1,522 305 1,100 3,297	11 46 9 33 100	26 129 29 98 282	9 46 10 35 100	3,009 12,639 2,772 12,320 30,740	10 41 9 40 100	41%	33%	.16	35%	.14
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	learncom (Means indicate the percentage who responded "Done or in progress.")		Have not decided Do not plan to do Plan to do Done or in progress Total	16 83 9 29 137	12 61 7 21 100	463 1,817 366 660 3,306	14 55 11 20 100	38 143 34 67 282	13 51 12 24 100	3,750 17,149 2,809 7,014 30,722	12 56 9 23 100	21%	20%	.03	24%	-.06
d. Participate in a study abroad program	abroad (Means indicate the percentage who responded "Done or in progress.")		Have not decided Do not plan to do Plan to do Done or in progress Total	12 106 6 13 137	9 77 4 9 100	394 2,394 256 255 3,299	12 73 8 8 100	38 205 19 17 279	14 73 7 6 100	3,060 21,928 2,068 3,667 30,723	10 71 7 12 100	9%	8%	.06	6%	.13
e. Work with a faculty member on a research project	research (Means indicate the percentage who responded "Done or in progress.")		Have not decided Do not plan to do Plan to do Done or in progress Total	17 57 22 42 138	12 41 16 30 100	550 1,435 601 712 3,298	17 44 18 22 100	45 119 53 64 281	16 42 19 23 100	4,695 12,650 4,772 8,561 30,678	15 41 16 28 100	30%	22% * ▲	.20	23%	.17
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone (Means indicate the percentage who responded "Done or in progress.")		Have not decided Do not plan to do Plan to do Done or in progress Total	5 7 40 86 138	4 5 29 62 100	254 460 1,118 1,473 3,305	8 14 34 45 100	19 20 106 137 282	7 7 38 49 100	1,827 3,173 9,753 15,964 30,717	6 10 32 52 100	62%	45% *** ▲	.36	49% ** ▲	.28

#### 12. About how many of your courses at this institution have included a community-based project (service-learning)?

servcourse	1	None	67	49	1,732	53	92	33	16,255	53	1.6	1.6	.03	1.8 ** ▼	-.28	1.5	.06
	2	Some	64	46	1,303	40	164	59	12,365	40							
	3	Most	4	3	213	6	20	7	1,637	5							
	4	All	3	2	45	1	3	1	395	1							
	Total		138	100	3,293	100	279	100	30,652	100							

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors<sup>a</sup> in Engineering

				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
						NSSE 2016 & 2017								Your seniors compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
13. Indicate the quality of your interactions with the following people at your institution.																			
a. Students	QIstudent	1	Poor	1	1	41	1	2	1	356	1	5.6	5.5	.08	5.7	-.03	5.6	.03	
		2		3	2	55	2	3	1	450	1								
		3		7	5	136	4	11	4	1,274	4								
		4		10	7	382	12	26	9	3,060	10								
		5		30	22	820	25	74	26	7,448	24								
		6		48	35	911	27	70	25	8,994	29								
		7	Excellent	39	28	929	28	93	33	8,933	29								
		—	Not applicable	1	1	40	1	3	1	272	1								
			Total	139	100	3,314	100	282	100	30,787	100								
b. Academic advisors	QIadvisor	1	Poor	5	4	155	5	15	5	1,702	6	5.0	5.2	-.12	5.2	-.12	5.0	.00	
		2		11	8	164	5	10	4	1,790	6								
		3		14	10	234	7	19	7	2,645	9								
		4		19	14	424	13	37	13	4,227	14								
		5		24	17	618	19	56	20	5,850	19								
		6		27	20	641	19	58	21	6,013	20								
		7	Excellent	37	27	1,026	31	83	30	8,034	26								
		—	Not applicable	1	1	47	1	3	1	487	2								
			Total	138	100	3,309	100	281	100	30,748	100								
c. Faculty	QIfaculty	1	Poor	2	1	76	2	11	4	640	2	5.2	5.3	-.09	5.3	-.05	5.3	-.05	
		2		5	4	104	3	6	2	1,031	3								
		3		12	9	199	6	14	5	1,891	6								
		4		20	14	414	13	41	15	4,256	14								
		5		34	25	808	24	66	24	7,735	25								
		6		35	25	886	27	74	26	8,294	27								
		7	Excellent	29	21	788	24	66	24	6,628	22								
		—	Not applicable	1	1	27	1	2	1	196	1								
			Total	138	100	3,302	100	280	100	30,671	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
								NSSE 2016 & 2017				Your seniors compared with						
												Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
d. Student services staff (career services, student activities, housing, etc.)	QIstaff	1	Poor	9	7	150	5	18	6	1,512	5	4.8	4.8	-.03	4.8	-.03	4.8	-.01
		2		6	4	141	4	11	4	1,493	5							
		3		9	7	255	8	19	7	2,397	8							
		4		21	15	447	14	42	15	4,574	15							
		5		30	22	596	18	45	16	6,077	20							
		6		26	19	532	16	48	17	5,337	17							
		7	Excellent	20	14	501	15	49	17	4,612	15							
		—	Not applicable	17	12	677	21	49	17	4,688	15							
		Total		138	100	3,299	100	281	100	30,690	100							
e. Other administrative staff and offices (registrar, financial aid, etc.)	QIadmin	1	Poor	4	3	202	6	27	10	1,720	6	4.9	4.8	.04	4.6	.14	4.8	.07
		2		7	5	157	5	20	7	1,694	6							
		3		14	10	260	8	13	5	2,637	9							
		4		28	20	504	15	55	20	5,000	16							
		5		27	20	719	22	57	20	6,665	22							
		6		24	17	623	19	52	18	5,815	19							
		7	Excellent	28	20	595	18	50	18	5,026	16							
		—	Not applicable	6	4	248	7	8	3	2,198	7							
		Total		138	100	3,308	100	282	100	30,755	100							
14. How much does your institution emphasize the following?																		
a. Spending significant amounts of time studying and on academic work	empstudy	1	Very little	4	3	58	2	6	2	575	2	3.2	3.2	.05	3.3	-.09	3.2	-.02
		2	Some	21	15	552	17	40	14	4,500	15							
		3	Quite a bit	57	41	1,479	45	106	38	13,324	43							
		4	Very much	57	41	1,217	37	129	46	12,317	40							
		Total		139	100	3,306	100	281	100	30,716	100							
b. Providing support to help students succeed academically	SEacademic	1	Very little	11	8	198	6	21	8	1,683	5	2.8	2.9	-.04	2.9	-.09	2.9	-.04
		2	Some	32	23	865	26	64	23	7,985	26							
		3	Quite a bit	64	46	1,375	42	108	39	13,481	44							
		4	Very much	32	23	860	26	85	31	7,493	24							
		Total		139	100	3,298	100	278	100	30,642	100							
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	17	12	354	11	36	13	3,178	10	2.6	2.8	-.17	2.7	-.15	2.7	-.16
		2	Some	45	32	922	28	79	28	8,717	28							
		3	Quite a bit	54	39	1,195	36	85	30	11,600	38							
		4	Very much	23	17	825	25	80	29	7,183	23							
		Total		139	100	3,296	100	280	100	30,678	100							

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering Tennessee Technological University

### Seniors<sup>a</sup> in Engineering

Seniors<sup>a</sup> in Engineering

				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
										NSSE 2016 & 2017				Your seniors compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
d. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	26	19	618	19	47	17	5,644	18	2.5	2.5	-.03	2.5	-.02	2.5	-.02	
		2	Some	45	32	1,077	33	104	37	10,114	33								
		3	Quite a bit	46	33	978	30	76	27	9,360	31								
		4	Very much	22	16	624	19	53	19	5,535	18								
		Total		139	100	3,297	100	280	100	30,653	100								
e. Providing opportunities to be involved socially	SEsocial	1	Very little	13	9	407	12	26	9	3,058	10	2.7	2.7	.06	2.7	-.02	2.7	-.02	
		2	Some	43	31	999	30	97	35	8,929	29								
		3	Quite a bit	54	39	1,203	36	83	30	12,035	39								
		4	Very much	29	21	691	21	73	26	6,663	22								
		Total		139	100	3,300	100	279	100	30,685	100								
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	25	18	489	15	41	15	3,954	13	2.5	2.6	-.07	2.7	-.18	2.7	-.14	
		2	Some	39	28	986	30	74	26	8,783	29								
		3	Quite a bit	50	36	1,136	34	89	32	11,333	37								
		4	Very much	25	18	683	21	77	27	6,576	21								
		Total		139	100	3,294	100	281	100	30,646	100								
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	61	44	1,205	37	107	38	10,840	35	1.9	2.0	-.13	2.0	-.08	2.0	-.12	
		2	Some	41	29	1,126	34	101	36	11,125	36								
		3	Quite a bit	27	19	663	20	43	15	6,079	20								
		4	Very much	10	7	305	9	29	10	2,613	9								
		Total		139	100	3,299	100	280	100	30,657	100								
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	25	18	652	20	43	15	4,955	16	2.4	2.4	-.07	2.6 *	-.21	2.5	-.16	
		2	Some	52	37	1,063	32	92	33	9,967	33								
		3	Quite a bit	47	34	1,071	32	87	31	10,467	34								
		4	Very much	15	11	517	16	58	21	5,271	17								
		Total		139	100	3,303	100	280	100	30,660	100								
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	38	28	856	26	62	22	7,372	24	2.1	2.2	-.10	2.2	-.12	2.2	-.13	
		2	Some	58	42	1,264	38	125	44	11,988	39								
		3	Quite a bit	28	20	811	25	61	22	7,931	26								
		4	Very much	13	9	366	11	33	12	3,335	11								
		Total		137	100	3,297	100	281	100	30,626	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
												Your seniors compared with						
												Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
15. About how many hours do you spend in a typical 7-day week doing the following?																		
a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	tmpprephrs  (Recorded version of tmpprep created by NSSE. Values are estimated number of hours per week.)	0	0 hrs	3	2	23	1	2	1	169	1	20.7	16.8 ***	.41	18.4 *	.23	17.7 ***	.31
		3	1-5 hrs	6	4	334	10	28	10	2,791	9							
		8	6-10 hrs	21	15	625	19	33	12	5,243	17							
		13	11-15 hrs	19	14	624	19	55	20	5,476	18							
		18	16-20 hrs	14	10	601	18	53	19	5,750	19							
		23	21-25 hrs	23	17	425	13	37	13	4,001	13							
		28	26-30 hrs	18	13	242	7	17	6	2,591	8							
		33	More than 30 hrs	35	25	428	13	55	20	4,716	15							
		Total	139	100	3,302	100	280	100	30,737	100								
b. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	tmcocurrhrs  (Recorded version of tmcocurr created by NSSE. Values are estimated number of hours per week.)	0	0 hrs	46	33	1,476	45	140	50	11,432	37	5.2	4.9	.04	4.8	.04	5.3	-.02
		3	1-5 hrs	46	33	848	26	51	18	9,314	30							
		8	6-10 hrs	27	20	436	13	42	15	4,531	15							
		13	11-15 hrs	9	7	218	7	17	6	2,434	8							
		18	16-20 hrs	3	2	160	5	19	7	1,440	5							
		23	21-25 hrs	4	3	90	3	6	2	745	2							
		28	26-30 hrs	1	1	22	1	0	0	297	1							
		33	More than 30 hrs	2	1	50	2	5	2	468	2							
		Total	138	100	3,300	100	280	100	30,661	100								
c. Working for pay on campus	tmworkonhrs  (Recorded version of tmworkon created by NSSE. Values are estimated number of hours per week.)	0	0 hrs	81	58	2,345	71	207	74	20,808	68	4.0	3.9	.01	3.7	.04	4.0	.00
		3	1-5 hrs	13	9	152	5	7	3	1,715	6							
		8	6-10 hrs	29	21	235	7	18	6	2,872	9							
		13	11-15 hrs	7	5	204	6	16	6	2,130	7							
		18	16-20 hrs	6	4	217	7	23	8	2,060	7							
		23	21-25 hrs	1	1	75	2	1	0	572	2							
		28	26-30 hrs	1	1	21	1	0	0	194	1							
		33	More than 30 hrs	1	1	48	1	7	3	336	1							
		Total	139	100	3,297	100	279	100	30,687	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
								NSSE 2016 & 2017				Your seniors compared with						
												Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	86	63	1,564	47	136	48	16,658	54	6.3	12.1 *** ▼	-.43	11.3 *** ▼	-.40	9.3 ** ▼	-.24
	(Recorded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	9	7	125	4	14	5	1,328	4							
	8	6-10 hrs	9	7	157	5	14	5	1,692	6								
	13	11-15 hrs	4	3	168	5	17	6	1,780	6								
	18	16-20 hrs	13	9	229	7	18	6	2,460	8								
	23	21-25 hrs	3	2	201	6	14	5	1,685	5								
	28	26-30 hrs	3	2	150	5	17	6	1,051	3								
	33	More than 30 hrs	10	7	703	21	51	18	4,023	13								
	Total		137	100	3,297	100	281	100	30,677	100								
Estimated number of hours working for pay	tmworkhrs										10.2	15.9 *** ▼	-.41	15.0 *** ▼	-.34	13.3 ** ▼	-.24	
(Continuous variable created by NSSE)																		
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	86	62	2,007	61	177	63	18,955	62	2.0	2.4	-.09	2.4	-.09	2.1	-.04
	(Recorded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	38	27	896	27	70	25	8,621	28							
	8	6-10 hrs	10	7	184	6	15	5	1,562	5								
	13	11-15 hrs	2	1	91	3	9	3	682	2								
	18	16-20 hrs	3	2	50	2	4	1	395	1								
	23	21-25 hrs	0	0	40	1	4	1	209	1								
	28	26-30 hrs	0	0	8	0	1	0	76	0								
	33	More than 30 hrs	0	0	14	0	1	0	139	0								
	Total		139	100	3,290	100	281	100	30,639	100								
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	3	2	137	4	19	7	945	3	11.2	11.1	.01	10.6	.07	11.4	-.03
	(Recorded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	38	28	879	27	76	27	7,423	24							
	8	6-10 hrs	44	32	873	26	79	28	8,663	28								
	13	11-15 hrs	18	13	581	18	37	13	5,718	19								
	18	16-20 hrs	16	12	407	12	30	11	3,875	13								
	23	21-25 hrs	5	4	161	5	14	5	1,580	5								
	28	26-30 hrs	4	3	71	2	9	3	735	2								
	33	More than 30 hrs	10	7	193	6	15	5	1,750	6								
	Total		138	100	3,302	100	279	100	30,689	100								



# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
						NSSE 2016 & 2017								Your seniors compared with					
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
g. Providing care for dependents (children, parents, etc.)	tmcarehrs	0	0 hrs	111	80	2,148	65	177	64	22,191	72	2.4	5.4 ***	-.30	5.5 ***	-.35	4.1 **	-.19	
	(Recoded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	8	6	353	11	29	10	2,783	9								
	8	6-10 hrs	8	6	169	5	14	5	1,353	4									
	13	11-15 hrs	3	2	136	4	15	5	921	3									
	18	16-20 hrs	3	2	102	3	11	4	804	3									
	23	21-25 hrs	2	1	57	2	7	3	428	1									
	28	26-30 hrs	0	0	34	1	3	1	248	1									
	33	More than 30 hrs	3	2	283	9	21	8	1,894	6									
	Total		138	100	3,282	100	277	100	30,622	100									
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	17	12	725	22	34	12	5,912	19	4.8	5.1	-.04	5.6	-.12	4.9	-.01	
	(Recoded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	93	67	1,589	48	164	59	16,211	53								
	8	6-10 hrs	15	11	595	18	48	17	5,387	18									
	13	11-15 hrs	6	4	199	6	14	5	1,766	6									
	18	16-20 hrs	4	3	74	2	7	3	644	2									
	23	21-25 hrs	0	0	42	1	4	1	305	1									
	28	26-30 hrs	2	1	19	1	1	0	138	0									
	33	More than 30 hrs	2	1	53	2	8	3	375	1									
	Total		139	100	3,296	100	280	100	30,738	100									
16. Of the time you spend preparing for class in a typical 7-day week, about how much is on assigned reading?																			
reading	1	Very little	55	40	852	26	84	31	9,004	29	1.9	2.3 ***	-.41	2.2 **	-.29	2.2 ***	-.31		
	2	Some	57	41	1,176	36	104	38	11,643	38									
	3	About half	18	13	750	23	54	20	6,048	20									
	4	Most	8	6	383	12	23	8	2,917	10									
	5	Almost all	1	1	129	4	10	4	1,079	4									
		Total		139	100	3,290	100	275	100	30,691	100								
tmreadinghrs												5.3	6.0	-.14	5.9	-.12	5.8	-.10	
(Continuous variable created by NSSE. Calculated as a proportion of tmprephrs based on reading, where Very little= .10; Some= .25; About half= .50; Most= .75; Almost all= .90)																			

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>						
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech	Your seniors compared with					
	Carnegie Class	THEC Peer Group	NSSE 2016 & 2017											Carnegie Class	THEC Peer Group	NSSE 2016 & 2017		Carnegie Class
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>
(Collapsed version of tmreadinghrs created by NSSE.)	tmreadinghrscol	1	0 hrs	3	2	23	1	2	1	165	1	2.5	2.8 ** ▽	-.23	2.9 *** ▽	-.38	2.7 * ▽	-.18
		2	More than zero, up to 5 hrs	83	60	1,840	56	163	59	17,802	58							
		3	More than 5, up to 10 hrs	38	27	884	27	68	25	8,200	27							
		4	More than 10, up to 15 hrs	8	6	232	7	15	5	1,981	6							
		5	More than 15, up to 20 hrs	2	1	157	5	13	5	1,317	4							
		6	More than 20, up to 25 hrs	5	4	108	3	10	4	780	3							
		7	More than 25 hrs	0	0	32	1	3	1	350	1							
		Total		139	100	3,276	100	274	100	30,595	100							
17. How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?																		
a. Writing clearly and effectively	pgwrite	1	Very little	18	13	343	10	24	9	3,284	11	2.5	2.8 ** ▽	-.23	2.9 *** ▽	-.38	2.7 * ▽	-.18
		2	Some	52	37	908	27	64	23	9,146	30							
		3	Quite a bit	44	32	1,234	37	109	39	11,393	37							
		4	Very much	25	18	817	25	83	30	6,897	22							
		Total		139	100	3,302	100	280	100	30,720	100							
b. Speaking clearly and effectively	pgspeak	1	Very little	21	15	435	13	26	9	3,682	12	2.6	2.7	-.11	2.8 * ▽	-.25	2.7	-.11
		2	Some	42	30	944	29	78	28	9,160	30							
		3	Quite a bit	50	36	1,138	34	97	35	10,814	35							
		4	Very much	26	19	788	24	79	28	7,073	23							
		Total		139	100	3,305	100	280	100	30,729	100							
c. Thinking critically and analytically	pgthink	1	Very little	4	3	115	3	9	3	946	3	3.3	3.2	.09	3.3	-.06	3.3	.01
		2	Some	18	13	524	16	45	16	4,131	13							
		3	Quite a bit	50	36	1,182	36	68	24	10,858	35							
		4	Very much	67	48	1,484	45	159	57	14,795	48							
		Total		139	100	3,305	100	281	100	30,730	100							
d. Analyzing numerical and statistical information	pganalyze	1	Very little	6	4	170	5	5	2	1,242	4	3.4	3.2 ** △	.23	3.2	.14	3.2	.15
		2	Some	16	12	580	17	62	22	4,832	16							
		3	Quite a bit	39	28	1,134	34	75	27	10,161	33							
		4	Very much	78	56	1,431	43	139	49	14,511	47							
		Total		139	100	3,315	100	281	100	30,746	100							

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your seniors compared with					
														Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name <sup>l</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
e. Acquiring job- or work-related knowledge and skills	pgwork	1	Very little	10	7	303	9	25	9	2,579	8	3.0	3.0	.03	3.0	.00	3.0	.04	
		2	Some	32	23	725	22	61	22	6,987	23								
		3	Quite a bit	47	34	1,084	33	88	31	10,522	34								
		4	Very much	50	36	1,197	36	106	38	10,665	35								
		Total	139	100	3,309	100	280	100	30,753	100									
f. Working effectively with others	pgothers	1	Very little	5	4	202	6	13	5	1,735	6	3.2	3.0 **	.24	3.1	.16	3.0 *	.21	
		2	Some	21	15	767	23	64	23	6,592	21								
		3	Quite a bit	54	39	1,224	37	95	34	11,943	39								
		4	Very much	59	42	1,113	34	108	39	10,479	34								
		Total	139	100	3,306	100	280	100	30,749	100									
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	19	14	538	16	58	21	4,951	16	2.7	2.6	.08	2.5	.15	2.6	.08	
		2	Some	36	26	997	30	82	29	8,963	29								
		3	Quite a bit	52	37	977	30	71	25	9,658	31								
		4	Very much	32	23	799	24	69	25	7,171	23								
		Total	139	100	3,311	100	280	100	30,743	100									
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	19	14	646	20	50	18	5,453	18	2.6	2.5	.11	2.4	.18	2.5	.10	
		2	Some	45	32	1,032	31	105	37	10,114	33								
		3	Quite a bit	45	32	948	29	78	28	8,901	29								
		4	Very much	30	22	678	21	48	17	6,257	20								
		Total	139	100	3,304	100	281	100	30,725	100									
i. Solving complex real-world problems	pgprobsolve	1	Very little	9	6	374	11	30	11	2,872	9	3.1	2.8 **	.25	2.9	.14	2.9 *	.18	
		2	Some	30	22	838	25	69	25	7,415	24								
		3	Quite a bit	42	30	1,079	33	71	25	10,494	34								
		4	Very much	58	42	1,018	31	111	40	9,975	32								
		Total	139	100	3,309	100	281	100	30,756	100									
j. Being an informed and active citizen	pgcitizen	1	Very little	27	20	736	22	68	24	6,699	22	2.4	2.4	.04	2.3	.07	2.4	.05	
		2	Some	50	36	1,165	35	103	37	10,728	35								
		3	Quite a bit	37	27	802	24	55	20	8,190	27								
		4	Very much	24	17	593	18	55	20	4,984	16								
		Total	138	100	3,296	100	281	100	30,601	100									

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

## Frequencies and Statistical Comparisons: Engineering

### Tennessee Technological University

#### Seniors<sup>a</sup> in Engineering

Seniors <sup>a</sup> in Engineering				Frequency Distributions								Statistical Comparisons <sup>k</sup>							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Your seniors compared with					
		Carnegie Class												THEC Peer Group		NSSE 2016 & 2017			
Item wording or description	Variable name <sup>i</sup>	Values <sup>m</sup>	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	Mean	Effect size <sup>n</sup>	
18. How would you evaluate your entire educational experience at this institution?																			
	evalexp	1	Poor	3	2	146	4	14	5	1,157	4	3.2	3.1	.08	3.1	.04	3.1	.04	
		2	Fair	24	18	488	15	36	13	4,423	14								
		3	Good	55	40	1,499	45	126	45	13,898	45								
		4	Excellent	55	40	1,179	36	105	37	11,287	37								
		Total		137	100	3,312	100	281	100	30,765	100								
19. If you could start over again, would you go to the <i>same institution</i> you are now attending?																			
	sameinst	1	Definitely no	7	5	219	7	20	7	1,723	6	3.2	3.1	.10	3.2	.00	3.1	.03	
		2	Probably no	22	16	515	16	33	12	4,226	14								
		3	Probably yes	52	37	1,387	42	110	39	12,983	42								
		4	Definitely yes	59	42	1,192	36	118	42	11,886	39								
		Total		140	100	3,313	100	281	100	30,818	100								

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

## Engineering

			First-Year Students <sup>a</sup>								Seniors <sup>a</sup>							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
20a. How many majors do you plan to complete? (Do not count minors.)	MAJnum	One	98	96	2,395	89	214	86	21,982	86	133	95	2,956	89	252	89	27,078	88
		More than one	4	4	306	11	34	14	3,630	14	7	5	369	11	30	11	3,805	12
		Total	102	100	2,701	100	248	100	25,612	100	140	100	3,325	100	282	100	30,883	100
First major or expected first major, in NSSE's default related-major categories.  (This does not reflect any customization made for the Major Field Report.)	MAJfirstcol  (Recoded from MAJfirst.)	Arts & Humanities	0	0	42	2	5	2	917	4	0	0	37	1	6	2	943	3
		Biological Sci., Agriculture, & Natural Resources	1	1	4	0	0	0	83	0	0	0	7	0	1	0	97	0
		Physical Sci., Mathematics, & Computer Science	20	20	591	22	78	31	5,907	23	15	11	532	16	63	22	5,395	17
		Social Sciences	0	0	5	0	2	1	81	0	1	1	6	0	1	0	83	0
		Business	0	0	19	1	1	0	205	1	1	1	24	1	1	0	295	1
		Communications, Media, & Public Relations	0	0	5	0	0	0	48	0	0	0	13	0	0	0	71	0
		Education	0	0	1	0	0	0	14	0	0	0	2	0	0	0	17	0
		Engineering	80	78	1,663	62	145	58	15,950	62	120	86	2,040	61	179	63	19,832	64
		Health Professions	0	0	5	0	0	0	37	0	0	0	6	0	0	0	40	0
		Social Service Professions	0	0	13	0	1	0	87	0	0	0	27	1	1	0	189	1
		All Other	1	1	352	13	16	6	2,273	9	3	2	631	19	30	11	3,915	13
		Undecided, Undeclared	0	0	1	0	0	0	9	0	0	0	0	0	0	0	4	0
		Total	102	100	2,701	100	248	100	25,611	100	140	100	3,325	100	282	100	30,881	100
Second major or expected second major, in NSSE's default related-major categories.  (This does not reflect any customization made for the Major Field Report.)	MAJsecondcol  (Recoded from MAJsecond.)	Arts & Humanities	0	0	31	10	3	9	403	11	0	0	20	5	2	7	320	8
		Biological Sci., Agriculture, & Natural Resources	0	0	8	3	1	3	103	3	0	0	7	2	0	0	80	2
		Physical Sci., Mathematics, & Computer Science	0	0	74	24	10	29	1,135	31	2	29	84	23	10	33	1,068	28
		Social Sciences	0	0	5	2	0	0	145	4	0	0	16	4	1	3	154	4
		Business	0	0	30	10	6	18	305	8	1	14	27	7	2	7	313	8
		Communications, Media, & Public Relations	0	0	6	2	0	0	38	1	0	0	1	0	1	3	31	1
		Education	0	0	4	1	0	0	29	1	0	0	3	1	0	0	19	1
		Engineering	3	75	105	35	11	32	1,009	28	3	43	103	28	4	13	1,007	27
		Health Professions	0	0	7	2	0	0	32	1	0	0	4	1	1	3	42	1
		Social Service Professions	0	0	8	3	0	0	50	1	0	0	10	3	1	3	76	2
		All Other	1	25	24	8	3	9	324	9	1	14	82	22	6	20	607	16
		Undecided, Undeclared	0	0	1	0	0	0	43	1	0	0	12	3	2	7	69	2
		Total	4	100	303	100	34	100	3,616	100	7	100	369	100	30	100	3,786	100

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

## Tennessee Technological University

### Engineering

#### First-Year Students<sup>a</sup>

#### Seniors<sup>a</sup>

Item wording or description	Variable name	Response options	First-Year Students <sup>a</sup>								Seniors <sup>a</sup>							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
21. What is your class level?	class	Freshman/First-year	86	84	2,271	85	209	85	22,576	89	0	0	12	0	2	1	100	0
		Sophomore	16	16	350	13	33	13	2,335	9	2	1	68	2	4	1	519	2
		Junior	0	0	40	1	3	1	361	1	8	6	394	12	36	13	4,204	14
		Senior	0	0	7	0	0	0	81	0	118	86	2,747	83	233	83	25,295	82
		Unclassified	0	0	9	0	0	0	113	0	9	7	84	3	6	2	647	2
		Total	102	100	2,677	100	245	100	25,466	100	137	100	3,305	100	281	100	30,765	100
22. Thinking about this current academic term, are you a full-time student?	fulltime	No	0	0	102	4	12	5	884	3	18	13	683	21	66	23	5,362	18
		Yes	102	100	2,562	96	233	95	24,469	97	120	87	2,608	79	215	77	25,215	82
		Total	102	100	2,664	100	245	100	25,353	100	138	100	3,291	100	281	100	30,577	100
23a. How many courses are you taking for credit this current academic term?	coursenum	0	0	0	11	0	1	0	90	0	7	5	149	5	4	1	768	2
		1	0	0	23	1	2	1	185	1	1	1	141	4	10	4	1,002	3
		2	0	0	44	2	3	1	397	2	3	2	282	9	28	10	2,103	7
		3	0	0	95	4	16	6	1,090	4	8	6	377	11	48	17	3,382	11
		4	24	24	681	25	73	30	7,123	28	29	21	910	28	92	33	8,988	29
		5	50	49	1,098	41	78	32	9,730	38	50	36	803	24	37	13	8,327	27
		6	22	22	451	17	34	14	4,216	17	28	20	358	11	23	8	3,609	12
		7 or more	6	6	278	10	40	16	2,648	10	12	9	286	9	40	14	2,591	8
		Total	102	100	2,681	100	247	100	25,479	100	138	100	3,306	100	282	100	30,770	100
b. Of these, how many are entirely online?	onlinenum	0	91	89	2,230	84	211	86	21,831	86	129	94	2,263	69	219	78	23,594	77
		1	11	11	254	10	22	9	2,218	9	7	5	467	14	42	15	3,961	13
		2	0	0	75	3	5	2	625	2	1	1	244	7	5	2	1,572	5
		3	0	0	35	1	5	2	245	1	0	0	118	4	9	3	658	2
		4	0	0	41	2	3	1	199	1	0	0	95	3	1	0	429	1
		5	0	0	7	0	0	0	63	0	0	0	40	1	1	0	152	0
		6	0	0	7	0	0	0	50	0	0	0	28	1	1	0	110	0
		7 or more	0	0	14	1	0	0	98	0	0	0	34	1	2	1	154	1
		Total	102	100	2,663	100	246	100	25,329	100	137	100	3,289	100	280	100	30,630	100
Collapsed recode of courses taken online (Based on responses to coursenum and onlinenum.)	onlinecrscol	No courses taken online	91	89	2,230	84	211	86	21,829	86	129	94	2,263	69	219	78	23,594	77
		Some courses taken online	11	11	317	12	28	11	2,687	11	8	6	593	18	53	19	4,857	16
		All courses taken online	0	0	116	4	7	3	811	3	0	0	433	13	8	3	2,178	7
		Total	102	100	2,663	100	246	100	25,327	100	137	100	3,289	100	280	100	30,629	100

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

## Engineering

### First-Year Students<sup>a</sup>

### Seniors<sup>a</sup>

			First-Year Students <sup>a</sup>								Seniors <sup>a</sup>							
Item wording or description	Variable name	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
24. What have most of your grades been up to now at this institution?	grades	C- or lower	2	2	50	2	6	2	414	2	3	2	23	1	1	0	147	0
		C	2	2	75	3	9	4	707	3	8	6	71	2	6	2	764	2
		C+	3	3	134	5	13	5	1,069	4	7	5	179	5	20	7	1,480	5
		B-	11	11	157	6	13	5	1,542	6	17	12	249	8	31	11	2,398	8
		B	22	22	507	19	42	17	4,771	19	32	23	660	20	57	20	6,332	21
		B+	11	11	495	18	52	21	4,620	18	15	11	600	18	54	19	5,764	19
		A-	16	16	501	19	39	16	5,184	20	15	11	603	18	42	15	5,708	19
		A	35	34	757	28	73	30	7,116	28	40	29	920	28	71	25	8,126	26
Total	102	100	2,676	100	247	100	25,423	100	137	100	3,305	100	282	100	30,719	100		
25. Did you begin college at this institution or elsewhere?	begincol	Started here	95	95	2,432	91	217	88	23,340	92	70	51	1,679	51	159	57	18,138	59
		Started elsewhere	5	5	243	9	30	12	2,074	8	66	49	1,623	49	122	43	12,557	41
		Total	100	100	2,675	100	247	100	25,414	100	136	100	3,302	100	281	100	30,695	100
26. Since graduating from high school, which of the following types of schools have you attended <i>other than</i> the one you are now attending? (Select all that apply.)	attend_voc	Vocational or technical school	0	0	116	4	9	4	810	3	6	4	320	10	35	12	2,163	7
	attend_com	Community or junior college	8	8	208	8	20	8	1,995	8	59	44	1,327	40	90	32	11,320	37
	attend_col	4-year college or university other than this one	4	4	245	9	30	12	2,028	8	34	25	967	29	88	31	7,477	24
	attend_none	None	87	85	2,066	78	187	76	20,180	80	54	40	1,245	38	116	41	13,691	45
	attend_other	Other	2	2	115	4	7	3	956	4	2	1	157	5	10	4	1,281	4
27. What is the highest level of education you ever expect to complete?	edaspire	Some college but less than a bachelor's degree	1	1	163	6	13	5	1,268	5	4	3	225	7	26	9	1,608	5
		Bachelor's degree (B.A., B.S., etc.)	50	49	1,087	41	111	45	9,549	38	56	41	1,332	40	137	49	11,878	39
		Master's degree (M.A., M.S., etc.)	38	37	1,094	41	85	34	10,918	43	56	41	1,355	41	79	28	13,144	43
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	13	13	326	12	38	15	3,622	14	21	15	388	12	40	14	4,069	13
		Total	102	100	2,670	100	247	100	25,357	100	137	100	3,300	100	282	100	30,699	100

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

## Engineering

			First-Year Students <sup>a</sup>								Seniors <sup>a</sup>							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
28. What is the highest level of education completed by either of your parents (or those who raised you)?	parented	Did not finish high school	4	4	142	5	9	4	1,222	5	6	4	191	6	7	2	1,529	5
		High school diploma or G.E.D.	20	20	435	16	51	21	3,516	14	21	15	582	18	49	17	4,637	15
		Attended college, but did not complete degree	10	10	261	10	32	13	2,124	8	9	7	334	10	28	10	2,630	9
		Associate's degree (A.A., A.S., etc.)	3	3	210	8	15	6	1,957	8	17	12	335	10	24	9	2,734	9
		Bachelor's degree (B.A., B.S., etc.)	37	36	815	31	70	28	8,110	32	51	37	1,047	32	108	38	9,840	32
		Master's degree (M.A., M.S., etc.)	16	16	622	23	53	21	6,173	24	18	13	599	18	40	14	6,700	22
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	12	12	178	7	17	7	2,188	9	15	11	206	6	25	9	2,517	8
		Total	102	100	2,663	100	247	100	25,290	100	137	100	3,294	100	281	100	30,587	100
First-generation status (Neither parent holds a bachelor's degree.)	firstgen (Recoded from parented.)	Not first-generation	65	64	1,615	61	140	57	16,471	65	84	61	1,852	56	173	62	19,057	62
		First-generation	37	36	1,048	39	107	43	8,819	35	53	39	1,442	44	108	38	11,530	38
		Total	102	100	2,663	100	247	100	25,290	100	137	100	3,294	100	281	100	30,587	100
29. What is your gender identity?	genderid	Man	85	83	1,877	70	169	69	17,355	68	105	77	2,392	73	213	76	21,640	71
		Woman	16	16	723	27	73	30	7,405	29	24	18	807	24	62	22	8,052	26
		Another gender identity	1	1	37	1	1	0	315	1	4	3	42	1	4	1	398	1
		I prefer not to respond	0	0	30	1	3	1	301	1	3	2	56	2	2	1	570	2
		Total	102	100	2,667	100	246	100	25,376	100	136	100	3,297	100	281	100	30,660	100
30. Enter your year of birth (e.g., 1994):	agecat (Recoded from the information entered in birthyear.)	19 or younger	92	90	2,317	87	215	87	22,113	88	0	0	14	0	1	0	250	1
		20-23	10	10	202	8	19	8	1,963	8	92	69	1,836	56	155	56	19,835	65
		24-29	0	0	51	2	8	3	476	2	32	24	694	21	71	25	5,658	19
		30-39	0	0	58	2	4	2	390	2	7	5	462	14	37	13	3,036	10
		40-55	0	0	27	1	0	0	226	1	1	1	236	7	13	5	1,448	5
		Over 55	0	0	3	0	1	0	27	0	2	1	29	1	2	1	149	0
		Total	102	100	2,658	100	247	100	25,195	100	134	100	3,271	100	279	100	30,376	100
31a. Are you an international student?	internat	No	95	94	2,445	92	232	94	22,937	91	125	92	3,094	94	261	93	28,582	94
		Yes	6	6	210	8	14	6	2,292	9	11	8	183	6	20	7	1,917	6
		Total	101	100	2,655	100	246	100	25,229	100	136	100	3,277	100	281	100	30,499	100
	countrycol (Recoded from country.)	Africa Sub-Saharan	1	20	22	11	1	8	197	9	0	0	13	8	2	11	145	8
		Asia	0	0	68	34	9	69	1,036	48	5	45	62	36	6	32	844	47
		Canada	0	0	3	1	0	0	29	1	0	0	2	1	0	0	34	2
		Europe	1	20	15	7	1	8	151	7	1	9	12	7	1	5	128	7
		Latin America and Caribbean	1	20	31	15	0	0	403	19	0	0	25	14	1	5	269	15
		Middle East and North Africa	2	40	63	31	2	15	330	15	5	45	58	34	9	47	367	20
		Oceania	0	0	0	0	0	0	20	1	0	0	1	1	0	0	10	1
		Unknown region/uncoded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	5	100	202	100	13	100	2,166	100	11	100	173	100	19	100	1,797	100



# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

## Engineering

### First-Year Students<sup>a</sup>

### Seniors<sup>a</sup>

Item wording or description	Variable name	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
32. What is your racial or ethnic identification? (Select all that apply.)	re_amind	American Indian or Alaska Native	1	1	45	2	6	2	486	2	0	0	51	2	4	1	527	2
	re_asian	Asian	4	4	316	12	21	9	3,984	16	8	6	325	10	16	6	4,015	13
	re_black	Black or African American	8	8	373	14	67	27	2,339	9	4	3	354	11	48	17	2,020	7
	re_latino	Hispanic or Latino	5	5	413	16	12	5	3,357	13	3	2	405	12	9	3	3,387	11
	re_pacific	Native Hawaiian or Other Pacific Islander	0	0	39	1	3	1	292	1	2	1	24	1	2	1	270	1
	re_white	White	87	85	1,573	59	144	58	15,869	63	110	81	2,118	64	199	71	20,516	67
	re_other	Other	1	1	89	3	10	4	737	3	3	2	107	3	8	3	878	3
	re_pnr	I prefer not to respond	1	1	99	4	8	3	843	3	9	7	178	5	11	4	1,523	5
	re_all	American Indian or Alaska Native	0	0	6	0	1	0	78	0	0	0	8	0	1	0	126	0
	(Recoded from re_amind to re_pnr where each student is represented only once.)	Asian	4	4	246	9	16	6	3,287	13	6	4	258	8	14	5	3,327	11
33. Are you a member of a social fraternity or sorority?	re_amind to re_pnr	Black or African American	6	6	306	12	57	23	1,853	7	3	2	303	9	45	16	1,675	5
	re_pnr	Hispanic or Latino	3	3	307	12	7	3	2,367	9	3	2	305	9	6	2	2,426	8
	where each student is represented only once.)	Native Hawaiian/Other Pac. Islander	0	0	9	0	0	0	72	0	0	0	6	0	0	0	63	0
		White	82	80	1,405	53	133	54	14,062	56	109	80	1,945	59	191	68	18,680	61
		Other	1	1	56	2	7	3	464	2	3	2	62	2	5	2	566	2
		Multiracial	5	5	224	8	18	7	2,224	9	3	2	225	7	8	3	2,151	7
		I prefer not to respond	1	1	99	4	8	3	843	3	9	7	178	5	11	4	1,523	5
		Total	102	100	2,658	100	247	100	25,250	100	136	100	3,290	100	281	100	30,537	100
			95	93	2,518	95	219	89	23,335	92	126	93	2,991	91	249	89	27,290	89
		Yes	7	7	145	5	26	11	1,958	8	9	7	295	9	30	11	3,275	11
		Total	102	100	2,663	100	245	100	25,293	100	135	100	3,286	100	279	100	30,565	100
34. Which of the following best describes where you are living while attending college?	living	Residence hall, dormitory or other camp.	82	80	1,612	61	151	62	16,793	67	15	11	417	13	35	13	4,686	15
		Fraternity or sorority house	0	0	23	1	3	1	269	1	2	1	48	1	2	1	676	2
		Residence (house, apartment, etc.) within walking distance to the institution	5	5	197	7	25	10	1,895	8	56	41	655	20	66	24	8,528	28
		Residence (house, apartment, etc.) farther than walking distance to the institution	13	13	677	26	59	24	5,268	21	58	43	1,883	57	167	60	15,049	49
		None of the above	2	2	136	5	6	2	992	4	4	3	279	9	10	4	1,590	5
		Total	102	100	2,645	100	244	100	25,217	100	135	100	3,282	100	280	100	30,529	100
			99	97	2,519	95	236	96	23,416	93	135	100	3,167	97	275	98	29,249	96
35. Are you a student-athlete on a team sponsored by your institution's athletics department?	athlete	No	3	3	128	5	9	4	1,775	7	0	0	114	3	5	2	1,248	4
		Yes	102	100	2,647	100	245	100	25,191	100	135	100	3,281	100	280	100	30,497	100
		Total																

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

## Engineering

			First-Year Students <sup>a</sup>								Seniors <sup>a</sup>							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
36. Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?	veteran	No	99	98	2,562	97	241	98	24,206	96	131	96	2,977	91	259	93	27,912	92
		Yes	2	2	86	3	6	2	1,017	4	5	4	301	9	20	7	2,585	8
		Total	101	100	2,648	100	247	100	25,223	100	136	100	3,278	100	279	100	30,497	100
37a. Have you been diagnosed with any disability or impairment?	disability	No	90	88	2,289	86	221	90	21,994	87	118	87	2,802	85	240	86	26,183	86
		Yes	11	11	272	10	17	7	2,405	10	12	9	360	11	29	10	3,286	11
		I prefer not to respond	1	1	100	4	8	3	871	3	5	4	130	4	11	4	1,121	4
		Total	102	100	2,661	100	246	100	25,270	100	135	100	3,292	100	280	100	30,590	100
b. [If answered "yes"] Which of the following has been diagnosed? (Select all that apply.)	dis_sense	A sensory impairment (vision or hearing)	1	9	50	19	3	18	459	19	0	0	71	20	3	10	482	15
	dis_mobility	A mobility impairment	1	9	14	5	1	6	151	6	1	8	33	9	3	10	323	10
	dis_learning	A learning disability (e.g., ADHD, dyslexia)	5	45	138	51	11	65	1,167	49	11	92	151	42	16	55	1,540	47
	dis_mental	A mental health disorder	3	27	71	26	2	12	706	30	1	8	107	30	7	24	1,032	32
	dis_other	A disability or impairment not listed above	1	9	53	20	2	12	435	18	0	0	90	25	7	24	687	21
Disability or impairment	disability_all	A sensory impairment	1	1	32	1	2	1	311	1	0	0	42	1	2	1	289	1
		A mobility impairment	1	1	9	0	1	0	85	0	0	0	14	0	1	0	155	1
	(Recoded from disability and dis_sense to dis_other where each student is represented only once.)	A learning disability	5	5	104	4	9	4	856	3	10	7	112	3	13	5	1,132	4
		A mental health disorder	3	3	41	2	1	0	402	2	1	1	60	2	4	1	589	2
		A disability or impairment not listed	1	1	36	1	2	1	291	1	0	0	60	2	5	2	454	1
		More than one disability or impairment	0	0	48	2	2	1	443	2	1	1	72	2	4	1	641	2
		No disability or impairment	90	88	2,289	86	221	90	21,994	87	118	87	2,802	85	240	86	26,183	86
		Prefer not to respond	1	1	100	4	8	3	871	3	5	4	130	4	11	4	1,121	4
		Total	102	100	2,659	100	246	100	25,253	100	135	100	3,292	100	280	100	30,564	100
38. Which of the following best describes your sexual orientation?	sexorient17	Straight (heterosexual)	92	91	1,403	86	72	95	14,545	87	116	85	1,783	87	52	87	18,272	87
		Bisexual	4	4	71	4	0	0	635	4	2	1	58	3	1	2	636	3
		Gay	0	0	26	2	0	0	213	1	2	1	38	2	1	2	330	2
		Lesbian	0	0	10	1	1	1	103	1	0	0	17	1	1	2	134	1
		Queer	0	0	4	0	0	0	82	0	1	1	6	0	0	0	75	0
		Questioning or unsure	3	3	20	1	0	0	224	1	1	1	10	0	0	0	149	1
		Another sexual orientation	1	1	35	2	2	3	289	2	6	4	30	1	1	2	318	2
		I prefer not to respond	1	1	69	4	1	1	635	4	8	6	111	5	4	7	997	5
		Total	101	100	1,638	100	76	100	16,726	100	136	100	2,053	100	60	100	20,911	100

# NSSE 2017 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

## Engineering

### First-Year Students<sup>a</sup>

### Seniors<sup>a</sup>

			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2016 & 2017	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Institution-reported information																		
(Variables provided by your institution in your NSSE population file.)																		
Institution-reported: Sex	IRsex	Female	16	16	758	28	76	31	7,625	30	25	18	831	25	62	22	8,256	27
		Male	86	84	1,943	72	172	69	17,984	70	115	82	2,494	75	220	78	22,627	73
		Total	102	100	2,701	100	248	100	25,609	100	140	100	3,325	100	282	100	30,883	100
Institution-reported: Race or ethnicity	IRrace	American Indian or Alaska Native	0	0	7	0	2	1	86	0	1	1	14	0	2	1	131	0
		Asian	4	4	189	7	8	3	2,123	9	5	4	190	6	7	2	2,390	9
		Black or African American	6	6	290	11	62	25	1,617	7	4	3	272	9	44	16	1,426	5
		Hispanic or Latino	0	0	358	14	5	2	2,661	12	0	0	345	11	4	1	2,786	10
		Native Hawaiian/Other Pac. Islander	0	0	0	0	0	0	40	0	1	1	3	0	0	0	36	0
		White	84	82	1,373	53	134	54	12,777	57	124	89	1,856	60	191	68	17,025	63
		Other	0	0	0	0	0	0	9	0	0	0	0	0	0	0	5	0
		Foreign or nonresident alien	0	0	176	7	16	6	1,785	8	0	0	144	5	22	8	1,526	6
		Two or more races/ethnicities	7	7	82	3	10	4	806	4	1	1	88	3	4	1	826	3
		Unknown	1	1	92	4	11	4	710	3	4	3	169	5	8	3	1,031	4
		Total	102	100	2,567	100	248	100	22,614	100	140	100	3,081	100	282	100	27,182	100
Institution-reported: Class level	IRclass	Freshman/First-Year	102	100	2,701	100	248	100	25,612	100	0	0	0	0	0	0	0	0
		Sophomore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Junior	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Senior	0	0	0	0	0	0	0	0	140	100	3,325	100	282	100	30,884	100
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	102	100	2,701	100	248	100	25,612	100	140	100	3,325	100	282	100	30,884	100
Institution-reported: First-time first-year (FTFY) student	IRftfy	Not first-time first-year	11	11	357	13	40	16	2,687	10	140	100	3,324	100	282	100	30,636	99
		First-time first-year	91	89	2,344	87	208	84	22,918	90	0	0	1	0	0	0	248	1
		Total	102	100	2,701	100	248	100	25,605	100	140	100	3,325	100	282	100	30,884	100
Institution-reported: Enrollment status	IRenrollment	Not full-time	0	0	129	5	9	4	1,202	5	13	9	612	18	63	22	4,945	16
		Full-time	102	100	2,572	95	239	96	24,410	95	127	91	2,713	82	219	78	25,939	84
		Total	102	100	2,701	100	248	100	25,612	100	140	100	3,325	100	282	100	30,884	100

## Endnotes

- a. All results are unweighted.
- 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 is the range of values that is 95% likely to contain the true population mean, equal to the sample mean  $\pm 1.96 * SEM$ .
- 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 differ from Ns due to 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:  $*p < .05$ ,  $**p < .01$ ,  $***p < .001$  (2-tailed).
- g. Cohen's  $d$ : The mean difference divided by the pooled standard deviation. 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.
- h. Percentage of students who responded "Done or in progress" except for service-learning which is the percentage who responded that at least "Some" courses included a community-based project.
- i. Percentage point differences (institution – comp. group) rounded to whole numbers. Values less than one may not display a bar and may be shown as +0 or -0.  
 $*p < .05$ ,  $**p < .01$ ,  $***p < .001$  ( $z$ -test comparing participation rates).
- j. Cohen's  $h$ : The standardized difference between two proportions. Effect size indicates the practical importance of an observed difference. NSSE research has found that interpretations vary by HIP: For service-learning, internships, study abroad, and culminating senior experiences, an effect size of about .2 may be considered small, .5 medium, and .8 large. For learning community and research with faculty, an effect size of about .1 may be considered small, .3 medium, and .5 large (Rocconi & Gonyea, 2015).
- k. Means calculated from ordered response options (e.g., Very Often, Often, Sometimes, Never) assume equal intervals and should be interpreted with caution. Unless otherwise noted, statistical comparisons are two-tailed independent  $t$ -tests. Exceptions are the dichotomous high-impact practice items (11a to 11f) which are compared using a  $z$ -test.
- l. Items that make up the Engagement Indicators include the following two-letter prefixes: CL = Collaborative Learning, DD = Discussions with Diverse Others, ET = Effective Teaching Practices, HO = Higher-Order Learning, LS = Learning Strategies, QI = Quality of Interactions, QR = Quantitative Reasoning, RI = Reflective and Integrative Learning, SE = Supportive Environment, and SF = Student-Faculty Interaction.
- m. These are the values used to calculate means. For the majority of items, these values match the codes in the data file and codebook. For items estimating number of papers and hours per week, the values represent actual units using the midpoints of response option ranges and an estimate for unbounded options.
- n. Effect size for independent  $t$ -tests uses Cohen's  $d$ ;  $z$ -tests use Cohen's  $h$ .
- o. Statistical comparison uses  $z$ -test to compare the percentage who responded "Done or in progress."

### Key to symbols:

- ▲ 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.
- ▼ 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.

Note: It is important to interpret the direction of differences relative to item wording and your institutional context.

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