
Tennessee Technological University

NSSE 2019 Major Field Report, Part II

Comparisons to Other Institutions

Engineering

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

Frequencies will be reported for related-major groups that have at least 5 respondents, but NSSE requires a group to have at least 20 respondents for statistical comparisons (e.g., means and t-tests). 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^a 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.

First-Year Students in Engineering

Seniors in Engineering

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 Quality Assurance	Your first-year students compared with NSSE 2018 & 2019	Your seniors compared with Carnegie Class	Your seniors compared with Quality Assurance	Your seniors compared with NSSE 2018 & 2019
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	--	--	--	--		--

First-year students^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Academic Challenge												
Higher-Order Learning												
Tennessee Tech (N = 151)	37.0	13.9	1.13	15	25	35	50	60				
Carnegie Class	37.8	12.7	.16	20	30	40	45	60	156	-.8		-.062
Quality Assurance	38.0	12.5	.79	20	30	40	45	60	290	-1.0		-.079
NSSE 2018 & 2019	38.0	12.6	.09	20	30	40	45	60	152	-.9		-.074
Reflective & Integrative Learning												
Tennessee Tech (N = 152)	31.4	11.4	.93	14	23	31	37	54				
Carnegie Class	33.2	11.4	.15	14	26	33	40	54	6,303	-1.8		-.157
Quality Assurance	32.6	11.1	.70	17	26	31	40	54	402	-1.3		-.113
NSSE 2018 & 2019	33.5	11.5	.08	14	26	34	40	54	20,975	-2.1	*	-.183
Learning Strategies												
Tennessee Tech (N = 150)	37.2	13.4	1.10	13	27	40	47	60				
Carnegie Class	35.7	13.6	.17	13	27	33	47	60	6,228	1.5		.112
Quality Assurance	36.1	13.3	.85	13	27	33	47	60	395	1.1		.083
NSSE 2018 & 2019	36.0	13.5	.09	13	27	33	47	60	20,723	1.3		.094
Quantitative Reasoning												
Tennessee Tech (N = 148)	28.9	14.8	1.22	7	20	27	40	60				
Carnegie Class	30.1	14.6	.19	7	20	27	40	60	6,231	-1.1		-.078
Quality Assurance	29.7	13.7	.87	13	20	27	40	53	395	-.8		-.058
NSSE 2018 & 2019	30.1	14.6	.10	7	20	27	40	60	20,712	-1.1		-.078
Learning with Peers												
Collaborative Learning												
Tennessee Tech (N = 152)	35.1	12.6	1.02	20	25	35	40	60				
Carnegie Class	37.0	14.1	.18	15	25	40	50	60	160	-1.9		-.132
Quality Assurance	34.2	13.8	.87	10	25	35	45	60	405	.9		.068
NSSE 2018 & 2019	34.8	14.6	.10	10	25	35	45	60	154	.4		.025
Discussions with Diverse Others												
Tennessee Tech (N = 148)	39.3	14.8	1.22	15	30	40	55	60				
Carnegie Class	41.0	14.9	.19	20	30	40	55	60	6,239	-1.8		-.118
Quality Assurance	39.8	16.1	1.02	10	30	40	55	60	396	-.5		-.032
NSSE 2018 & 2019	39.2	15.4	.11	15	30	40	50	60	20,733	.0		.003

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Engagement Indicators: Engineering Tennessee Technological University

First-year students^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Experiences with Faculty												
Student-Faculty Interaction												
Tennessee Tech (N = 149)	20.3	14.1	1.15	0	10	20	30	50				
Carnegie Class	19.3	13.8	.18	0	10	20	25	45	6,224	1.0		.070
Quality Assurance	20.1	14.8	.93	0	10	15	30	50	399	.2		.017
NSSE 2018 & 2019	19.9	13.9	.10	0	10	20	30	45	20,723	.4		.030
Effective Teaching Practices												
Tennessee Tech (N = 151)	37.2	11.7	.96	20	28	40	44	60				
Carnegie Class	36.9	12.3	.16	16	28	36	44	60	6,299	.3		.024
Quality Assurance	38.8	12.4	.78	20	32	40	48	60	402	-1.6		-.135
NSSE 2018 & 2019	37.9	12.6	.09	16	28	40	48	60	20,955	-.7		-.054
Campus Environment												
Quality of Interactions												
Tennessee Tech (N = 149)	44.3	10.1	.83	26	38	46	52	60				
Carnegie Class	42.3	11.2	.15	22	36	44	50	60	5,979	2.0	*	.182
Quality Assurance	42.5	11.8	.77	20	35	43	52	60	382	1.9		.168
NSSE 2018 & 2019	42.9	11.6	.08	22	36	44	50	60	19,805	1.5		.129
Supportive Environment												
Tennessee Tech (N = 151)	34.8	11.4	.93	18	28	35	43	58				
Carnegie Class	35.9	12.6	.16	15	28	35	45	60	6,255	-1.1		-.088
Quality Assurance	36.0	12.4	.78	18	28	37	43	60	401	-1.1		-.095
NSSE 2018 & 2019	35.4	12.9	.09	15	28	35	43	60	20,815	-.6		-.043

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Engagement Indicators: Engineering Tennessee Technological University

Seniors^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Academic Challenge												
Higher-Order Learning												
Tennessee Tech (N = 145)	37.6	13.7	1.14	15	30	35	50	60				
Carnegie Class	37.6	13.4	.15	15	30	40	45	60	8,520	.0		-.002
Quality Assurance	37.6	14.5	1.21	15	30	40	48	60	287	.0		.001
NSSE 2018 & 2019	37.7	13.5	.09	15	30	40	45	60	25,095	-.1		-.008
Reflective & Integrative Learning												
Tennessee Tech (N = 145)	31.7	11.9	.99	14	23	31	40	54				
Carnegie Class	33.0	11.8	.13	14	26	31	40	54	8,610	-1.3		-.111
Quality Assurance	31.5	13.1	1.09	11	23	31	40	54	287	.2		.014
NSSE 2018 & 2019	33.3	11.9	.08	14	26	34	40	54	25,375	-1.6		-.132
Learning Strategies												
Tennessee Tech (N = 143)	35.5	14.1	1.18	13	27	33	47	60				
Carnegie Class	34.1	14.5	.16	13	27	33	40	60	8,531	1.5		.101
Quality Assurance	36.7	14.8	1.24	13	27	33	47	60	284	-1.2		-.081
NSSE 2018 & 2019	34.6	14.7	.09	13	27	33	47	60	25,104	.9		.065
Quantitative Reasoning												
Tennessee Tech (N = 143)	34.6	15.2	1.27	13	20	33	47	60				
Carnegie Class	33.2	15.6	.17	7	20	33	40	60	8,509	1.3		.086
Quality Assurance	31.7	17.0	1.43	0	20	33	47	60	283	2.9		.177
NSSE 2018 & 2019	32.4	15.7	.10	7	20	33	40	60	25,069	2.2		.142
Learning with Peers												
Collaborative Learning												
Tennessee Tech (N = 144)	41.3	14.0	1.17	15	30	45	50	60				
Carnegie Class	39.4	14.0	.15	15	30	40	50	60	8,578	1.9		.139
Quality Assurance	36.8	15.6	1.29	10	25	40	50	60	287	4.5	*	.303
NSSE 2018 & 2019	36.8	15.3	.10	10	25	40	50	60	25,281	4.6	***	.299
Discussions with Diverse Others												
Tennessee Tech (N = 143)	40.6	16.0	1.33	15	30	40	60	60				
Carnegie Class	41.2	15.6	.17	15	30	40	55	60	8,504	-.6		-.036
Quality Assurance	41.0	15.9	1.33	15	30	40	55	60	284	-.5		-.029
NSSE 2018 & 2019	39.3	16.3	.10	10	30	40	55	60	25,049	1.3		.081

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Engagement Indicators: Engineering Tennessee Technological University

Seniors^a in Engineering

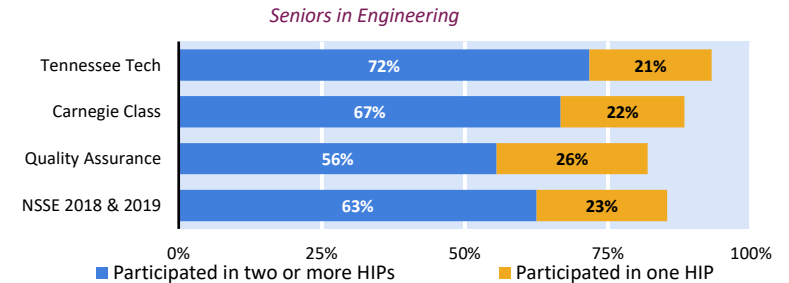
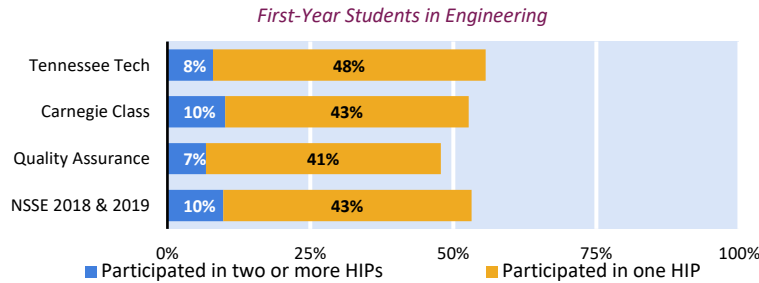
	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Experiences with Faculty												
Student-Faculty Interaction												
Tennessee Tech (N = 144)	24.9	16.2	1.35	0	13	25	38	55				
Carnegie Class	22.5	15.2	.17	0	10	20	30	50	8,515	2.4		.157
Quality Assurance	25.6	16.9	1.42	0	15	20	40	60	283	-.7		-.043
NSSE 2018 & 2019	22.7	15.3	.10	0	10	20	35	55	25,118	2.1		.140
Effective Teaching Practices												
Tennessee Tech (N = 145)	33.7	12.5	1.04	12	28	32	40	56				
Carnegie Class	35.5	13.1	.14	15	28	36	44	60	8,594	-1.8		-.133
Quality Assurance	38.3	14.7	1.23	16	28	40	52	60	279	-4.5	**	-.332
NSSE 2018 & 2019	36.7	13.5	.09	16	28	36	48	60	25,330	-3.0	**	-.225
Campus Environment												
Quality of Interactions												
Tennessee Tech (N = 141)	41.4	12.7	1.07	18	34	42	50	60				
Carnegie Class	40.5	11.7	.13	20	34	42	50	60	8,167	.9		.077
Quality Assurance	42.2	13.2	1.12	20	32	44	53	60	277	-.7		-.057
NSSE 2018 & 2019	41.5	12.0	.08	20	34	42	50	60	23,935	-.1		-.005
Supportive Environment												
Tennessee Tech (N = 145)	26.6	13.4	1.12	5	18	25	35	55				
Carnegie Class	30.2	13.5	.15	8	20	30	40	55	8,552	-3.6	**	-.265
Quality Assurance	30.8	14.1	1.17	8	23	33	40	58	287	-4.2	*	-.302
NSSE 2018 & 2019	30.1	13.7	.09	8	20	30	40	55	25,181	-3.5	**	-.252

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

High-Impact Practices: Engineering Tennessee Technological University

Overall HIP Participation^{a,h}

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.

	Tennessee Tech	Your students' participation compared with:			
		Carnegie Class	Quality Assurance	NSSE 2018 & 2019	
	%	Difference ⁱ	Difference ⁱ	Difference ⁱ	ES ^j
<i>First-Year Students in Engineering</i>					
12. Service-Learning	50	+8	+9	+4	.15
11c. Learning Community	9	-8	-1	-5	* -.24
11e. Research with Faculty	7	+1	+2	+2	.03
Participated in at least one	56	+3	+8	+2	.06
Participated in two or more	8	-2	+1	-2	-.08
<i>Seniors in Engineering</i>					
12. Service-Learning	53	+10	+10	+6	.20
11c. Learning Community	20	-4	-1	-2	-.09
11e. Research with Faculty	37	+6	+11	+10	.12
11a. Internship or Field Exp.	57	-0	+7	+3	.00
11d. Study Abroad	9	-8	-1	-4	* -.23
11f. Culminating Senior Exp.	65	+9	+16	+11	* .18
Participated in at least one	93	+5	+11	+8	** .32
Participated in two or more	72	+5	+16	+9	** .35

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

Item wording or description				Frequency Distributions								Statistical Comparisons ^k																	
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019											
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ											
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 Sometimes		3 Often		4 Very often		Total		2.6		2.7		-.11		2.9 ***		-.40		2.7 **		-.22	
b. Prepared two or more drafts of a paper or assignment before turning it in				drafts		1 Never		2 Sometimes		3 Often		4 Very often		Total		2.4		2.3		.07		2.4		-.01		2.4		.01	
c. Come to class without completing readings or assignments				unpreparedr <i>(Reverse-coded version of unprepared created by NSSE.)</i>		1 Very often		2 Often		3 Sometimes		4 Never		Total		3.2		3.0 ***		.35		3.1 *		.22		3.0 **		.26	
d. Attended an art exhibit, play, or other arts performance (dance, music, etc.)				attendart		1 Never		2 Sometimes		3 Often		4 Very often		Total		2.2		1.8 ***		.50		1.8 ***		.53		1.8 ***		.50	
e. Asked another student to help you understand course material				CLaskhelp		1 Never		2 Sometimes		3 Often		4 Very often		Total		2.8		2.8		-.08		2.7		.10		2.7		.05	
f. Explained course material to one or more students				CLexplain		1 Never		2 Sometimes		3 Often		4 Very often		Total		2.8		2.9		-.12		2.8		.07		2.8		.00	

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
																			Mean
g. Prepared for exams by discussing or working through course material with other students	CLstudy	1	Never	14	9	675	11	35	14	3,007	14	2.7	2.7	-.07	2.6	.05	2.6	.06	
		2	Sometimes	53	35	1,833	30	84	33	6,642	32								
		3	Often	53	35	2,037	33	77	30	6,646	32								
		4	Very often	32	21	1,635	26	60	23	4,593	22								
		Total		152	100	6,180	100	256	100	20,888	100								
h. Worked with other students on course projects or assignments	CLproject	1	Never	5	3	286	5	11	4	1,471	7	2.7	2.9	-.15	2.8	-.01	2.8	-.04	
		2	Sometimes	58	38	1,861	30	95	37	6,524	31								
		3	Often	60	39	2,390	39	97	38	8,001	38								
		4	Very often	29	19	1,634	26	53	21	4,885	23								
		Total		152	100	6,171	100	256	100	20,881	100								
i. Given a course presentation	present	1	Never	30	20	1,295	21	79	31	4,245	20	2.2	2.2	.05	2.0 *	.23	2.2	.01	
		2	Sometimes	70	46	2,958	48	109	43	9,654	46								
		3	Often	38	25	1,353	22	48	19	4,939	24								
		4	Very often	14	9	565	9	20	8	2,052	10								
		Total		152	100	6,171	100	256	100	20,890	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	18	12	476	8	23	9	1,764	8	2.4	2.6	-.15	2.5	-.06	2.5	-.14	
		2	Sometimes	63	41	2,603	42	114	45	8,653	41								
		3	Often	58	38	2,275	37	89	35	7,676	37								
		4	Very often	13	9	805	13	28	11	2,772	13								
		Total		152	100	6,159	100	254	100	20,865	100								
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	28	18	877	14	40	16	2,963	14	2.2	2.3	-.15	2.3	-.08	2.4 *	-.18	
		2	Sometimes	75	49	2,880	47	120	47	9,304	45								
		3	Often	36	24	1,797	29	73	29	6,302	30								
		4	Very often	13	9	612	10	20	8	2,301	11								
		Total		152	100	6,166	100	253	100	20,870	100								
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIDiverse	1	Never	25	16	1,014	16	42	16	3,456	17	2.3	2.3	-.03	2.4	-.06	2.4	-.05	
		2	Sometimes	69	45	2,694	44	107	42	8,902	43								
		3	Often	43	28	1,775	29	75	29	6,089	29								
		4	Very often	15	10	678	11	31	12	2,409	12								
		Total		152	100	6,161	100	255	100	20,856	100								

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Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

Item wording or description				Variable name ^l				Frequency Distributions				Statistical Comparisons ^k												
								Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		
								Count	%	Count	%	Count	%	Count	%	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
d. Examined the strengths and weaknesses of your own views on a topic or issue				RIownview				1	Never	7	5	340	6	15	6	1,135	5	2.7	2.7	-.01	2.7	-.05	2.7	-.04
								2	Sometimes	61	40	2,118	34	73	29	6,848	33							
								3	Often	55	36	2,710	44	129	51	9,303	45							
								4	Very often	29	19	997	16	37	15	3,546	17							
								Total		152	100	6,165	100	254	100	20,832	100							
e. Tried to better understand someone else's views by imagining how an issue looks from their perspective				RIPerspect				1	Never	10	7	229	4	10	4	746	4	2.7	2.9 *	-.18	2.8	-.16	2.9 *	-.19
								2	Sometimes	52	34	1,752	28	76	30	5,837	28							
								3	Often	61	40	2,848	46	112	44	9,620	46							
								4	Very often	29	19	1,326	22	57	22	4,630	22							
								Total		152	100	6,155	100	255	100	20,833	100							
f. Learned something that changed the way you understand an issue or concept				RInewview				1	Never	4	3	195	3	11	4	712	3	2.7	2.8	-.11	2.7	-.02	2.8	-.11
								2	Sometimes	59	39	2,025	33	89	35	6,775	33							
								3	Often	64	42	2,749	45	110	43	9,194	44							
								4	Very often	24	16	1,178	19	43	17	4,110	20							
								Total		151	100	6,147	100	253	100	20,791	100							
g. Connected ideas from your courses to your prior experiences and knowledge				RIconnect				1	Never	2	1	93	2	5	2	310	1	2.9	3.0 *	-.18	3.0	-.13	3.0 *	-.20
								2	Sometimes	46	30	1,358	22	59	23	4,440	21							
								3	Often	73	48	3,116	51	129	51	10,520	51							
								4	Very often	31	20	1,569	26	61	24	5,495	26							
								Total		152	100	6,136	100	254	100	20,765	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	34	23	1,470	24	54	21	5,074	24	2.2	2.2	.07	2.3	-.10	2.2	.06
								2	Sometimes	63	42	2,821	46	105	41	9,308	45							
								3	Often	39	26	1,277	21	56	22	4,335	21							
								4	Very often	14	9	580	9	39	15	2,086	10							
								Total		150	100	6,148	100	254	100	20,803	100							
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)				SFotherwork				1	Never	70	47	3,063	50	147	58	10,374	50	1.8	1.7	.10	1.7	.15	1.7	.09
								2	Sometimes	48	32	1,974	32	58	23	6,527	31							
								3	Often	21	14	783	13	33	13	2,750	13							
								4	Very often	11	7	324	5	16	6	1,142	5							
								Total		150	100	6,144	100	254	100	20,793	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Effect size ⁿ	Effect size ⁿ		Effect size ⁿ	Effect size ⁿ	
c. Discussed course topics, ideas, or concepts with a faculty member outside of class	SFdiscuss	1	Never	48	32	1,954	32	85	33	6,393	31	1.9	2.0	-.03	2.0	-.02	2.0	-.07	
		2	Sometimes	68	45	2,771	45	112	44	9,180	44								
		3	Often	28	19	1,044	17	38	15	3,841	18								
		4	Very often	6	4	365	6	19	7	1,360	7								
		Total		150	100	6,134	100	254	100	20,774	100								
d. Discussed your academic performance with a faculty member	SFperform	1	Never	36	24	1,716	28	69	27	5,492	26	2.1	2.0	.07	2.1	.00	2.1	.00	
		2	Sometimes	77	51	2,987	49	118	46	9,756	47								
		3	Often	29	19	1,070	17	48	19	4,099	20								
		4	Very often	9	6	366	6	20	8	1,432	7								
		Total		151	100	6,139	100	255	100	20,779	100								
4. During the current school year, how much has your coursework emphasized the following?																			
a. Memorizing course material	memorize	1	Very little	0	0	255	4	6	2	906	4	3.1	2.8 ***	.31	2.9 **	.30	2.8 ***	.33	
		2	Some	28	19	1,855	30	81	32	6,283	30								
		3	Quite a bit	84	56	2,768	45	113	44	9,453	45								
		4	Very much	39	26	1,276	21	55	22	4,174	20								
		Total		151	100	6,154	100	255	100	20,816	100								
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	4	3	138	2	8	3	564	3	3.0	3.1	-.06	3.1	-.01	3.0	.02	
		2	Some	30	20	1,136	18	48	19	4,262	20								
		3	Quite a bit	72	48	2,900	47	121	48	9,870	47								
		4	Very much	45	30	1,968	32	77	30	6,107	29								
		Total		151	100	6,142	100	254	100	20,803	100								
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	4	3	234	4	10	4	724	3	2.9	2.9	.01	2.9	.07	2.9	.00	
		2	Some	43	28	1,528	25	64	25	5,125	25								
		3	Quite a bit	61	40	2,745	45	122	48	9,508	46								
		4	Very much	43	28	1,638	27	57	23	5,423	26								
		Total		151	100	6,145	100	253	100	20,780	100								
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	9	6	434	7	8	3	1,238	6	2.7	2.7	-.04	2.9 *	-.22	2.8	-.11	
		2	Some	61	40	2,033	33	71	28	6,455	31								
		3	Quite a bit	51	34	2,551	42	125	49	8,986	43								
		4	Very much	30	20	1,121	18	50	20	4,073	20								
		Total		151	100	6,139	100	254	100	20,752	100								

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Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Mean	Effect size ⁿ		Mean	Effect size ⁿ	
e. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	11	7	323	5	10	4	919	4	2.7	2.8	-.10	2.8	-.10	2.8	-.13	
		2	Some	51	34	1,785	29	78	31	5,949	29								
		3	Quite a bit	56	37	2,690	44	115	45	9,417	45								
		4	Very much	33	22	1,334	22	51	20	4,506	22								
		Total		151	100	6,132	100	254	100	20,791	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	1	134	2	3	1	473	2	3.0	3.0	.03	3.1	-.13	3.0	-.02	
		2	Some	33	22	1,401	23	50	20	4,529	22								
		3	Quite a bit	76	51	2,982	49	116	46	9,769	47								
		4	Very much	39	26	1,625	26	83	33	6,013	29								
		Total		150	100	6,142	100	252	100	20,784	100								
b. Taught course sessions in an organized way	ETorganize	1	Very little	5	3	203	3	5	2	728	4	3.0	3.0	.10	3.0	-.01	3.0	.06	
		2	Some	30	20	1,439	23	51	20	4,610	22								
		3	Quite a bit	71	47	2,929	48	125	49	9,659	47								
		4	Very much	45	30	1,568	26	72	28	5,769	28								
		Total		151	100	6,139	100	253	100	20,766	100								
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	4	3	163	3	7	3	655	3	3.1	3.0	.06	3.0	.05	3.0	.05	
		2	Some	31	21	1,402	23	57	22	4,558	22								
		3	Quite a bit	68	45	2,796	46	114	45	9,211	44								
		4	Very much	48	32	1,782	29	76	30	6,351	31								
		Total		151	100	6,143	100	254	100	20,775	100								
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	16	11	627	10	19	7	1,826	9	2.6	2.7	-.05	2.8 *	-.24	2.7	-.14	
		2	Some	59	39	2,092	34	71	28	6,533	31								
		3	Quite a bit	45	30	2,219	36	100	39	7,776	37								
		4	Very much	31	21	1,207	20	64	25	4,640	22								
		Total		151	100	6,145	100	254	100	20,775	100								
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	12	8	582	9	21	8	1,738	8	2.6	2.6	-.02	2.7	-.12	2.7	-.12	
		2	Some	65	43	2,227	36	82	32	6,920	33								
		3	Quite a bit	47	31	2,333	38	104	41	8,067	39								
		4	Very much	27	18	1,001	16	47	19	4,060	20								
		Total		151	100	6,143	100	254	100	20,785	100								

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Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
												Your first-year students compared with							
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
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	3	330	5	12	5	1,219	6	2.8	2.8	.04	2.8	.03	2.8	.06	
		2	Sometimes	47	31	1,850	30	77	30	6,305	30								
		3	Often	67	44	2,664	43	113	44	8,954	43								
		4	Very often	32	21	1,287	21	52	20	4,263	21								
			Total	151	100	6,131	100	254	100	20,741	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	37	25	1,326	22	51	20	4,143	20	2.3	2.3	-.04	2.3	-.04	2.3	-.08	
		2	Sometimes	55	37	2,358	38	103	41	8,094	39								
		3	Often	40	27	1,716	28	74	29	5,992	29								
		4	Very often	18	12	728	12	26	10	2,502	12								
			Total	150	100	6,128	100	254	100	20,731	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	33	22	865	14	38	15	3,083	15	2.2	2.4 *	-.18	2.4	-.13	2.4 *	-.17	
		2	Sometimes	61	41	2,566	42	105	42	8,643	42								
		3	Often	40	27	2,038	33	85	34	6,729	33								
		4	Very often	15	10	651	11	21	8	2,248	11								
			Total	149	100	6,120	100	249	100	20,703	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	31	21	468	8	14	6	1,461	7	4.0	5.8 ***	-.35	5.0 *	-.25	6.1 ***	-.39	
	(Recorded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	40	27	1,333	22	61	24	4,349	21								
		4	3-5	39	26	2,167	35	103	41	7,038	34								
		8	6-10	31	21	1,240	20	52	21	4,457	21								
		13	11-15	7	5	543	9	18	7	1,899	9								
		18	16-20	1	1	188	3	2	1	716	3								
		23	More than 20	1	1	201	3	3	1	824	4								
			Total	150	100	6,140	100	253	100	20,744	100								
b. Between 6 and 10 pages	wrmednum	0	None	105	70	2,322	38	102	40	7,772	38	1.1	2.2 ***	-.34	1.4	-.16	2.1 ***	-.33	
	(Recorded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	29	19	2,187	36	114	45	7,723	37								
		4	3-5	9	6	1,017	17	27	11	3,339	16								
		8	6-10	5	3	393	6	7	3	1,294	6								
		13	11-15	2	1	139	2	2	1	373	2								
		18	16-20	1	1	21	0	0	0	82	0								
		23	More than 20	0	0	39	1	0	0	123	1								
			Total	151	100	6,118	100	252	100	20,706	100								

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Frequencies and Statistical Comparisons: Engineering Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions						Statistical Comparisons ^k									
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
c. 11 pages or more	wrlongnum	0	None	137	91	4,503	74	206	82	15,531	75	.6	1.0	-.14	.5	.07	.9	-.12	
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	7	5	1,076	18	36	14	3,502	17								
		4	3-5	1	1	254	4	6	2	786	4								
		8	6-10	2	1	131	2	2	1	418	2								
		13	11-15	2	1	108	2	2	1	288	1								
		18	16-20	2	1	20	0	0	0	66	0								
		23	More than 20	0	0	30	0	0	0	116	1								
			Total	151	100	6,122	100	252	100	20,707	100								
Estimated number of assigned pages of student writing.	wpages		(Continuous variable, recoded and summed by NSSE from wrshort, wrmed, and wrlong. Values are estimated pages of assigned writing.)									29.1	49.8 ***	-.30	33.2	-.08	49.1 ***	-.29	
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	7	5	208	3	18	7	1,098	5	2.9	3.1 **	-.23	2.9	-.04	3.0	-.11	
		2	Sometimes	48	32	1,374	22	67	26	5,298	26								
		3	Often	47	31	2,082	34	79	31	6,724	32								
		4	Very often	48	32	2,467	40	89	35	7,626	37								
			Total	150	100	6,131	100	253	100	20,746	100								
b. People from an economic background other than your own	DDeconomic	1	Never	4	3	213	3	15	6	1,000	5	3.0	3.1	-.06	3.0	.06	3.0	.03	
		2	Sometimes	38	25	1,331	22	60	24	4,931	24								
		3	Often	58	38	2,305	38	94	37	7,669	37								
		4	Very often	51	34	2,283	37	84	33	7,133	34								
			Total	151	100	6,132	100	253	100	20,733	100								
c. People with religious beliefs other than your own	DDreligion	1	Never	11	7	287	5	13	5	1,426	7	2.9	3.1 *	-.19	3.0	-.16	2.9	-.05	
		2	Sometimes	38	25	1,420	23	61	24	5,509	27								
		3	Often	58	39	2,096	34	85	33	6,770	33								
		4	Very often	43	29	2,326	38	95	37	7,037	34								
			Total	150	100	6,129	100	254	100	20,742	100								
d. People with political views other than your own	DDpolitical	1	Never	7	5	332	5	17	7	1,444	7	3.0	2.9	.05	3.0	.02	2.9	.12	
		2	Sometimes	31	21	1,727	28	61	24	5,989	29								
		3	Often	68	45	2,006	33	86	34	6,846	33								
		4	Very often	44	29	2,058	34	88	35	6,466	31								
			Total	150	100	6,123	100	252	100	20,745	100								

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				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Mean	Effect size ⁿ		Mean	Effect size ⁿ	
9. During the current school year, about how often have you done the following?																			
a. Identified key information from reading assignments	LSreading	1	Never	4	3	211	3	5	2	591	3	2.9	2.9	.02	2.9	.02	2.9	-.02	
		2	Sometimes	38	25	1,700	28	70	28	5,578	27								
		3	Often	80	53	2,902	47	128	51	9,992	48								
		4	Very often	28	19	1,305	21	47	19	4,549	22								
		Total		150	100	6,118	100	250	100	20,710	100								
b. Reviewed your notes after class	LSnotes	1	Never	9	6	354	6	15	6	1,233	6	3.0	2.8 *	.19	2.8	.17	2.8 *	.19	
		2	Sometimes	33	22	2,052	34	85	34	6,901	33								
		3	Often	63	42	2,198	36	84	33	7,449	36								
		4	Very often	46	30	1,515	25	68	27	5,129	25								
		Total		151	100	6,119	100	252	100	20,712	100								
c. Summarized what you learned in class or from course materials	LSsummary	1	Never	11	7	449	7	19	8	1,477	7	2.7	2.7	.05	2.7	.03	2.7	.04	
		2	Sometimes	53	35	2,164	35	81	32	7,216	35								
		3	Often	51	34	2,304	38	103	41	7,937	38								
		4	Very often	36	24	1,201	20	48	19	4,085	20								
		Total		151	100	6,118	100	251	100	20,715	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	0	0	59	1	3	1	210	1	5.5	5.4	.09	5.3 *	.21	5.4	.10	
		2		0	0	63	1	6	2	269	1								
		3		8	5	322	5	15	6	1,003	5								
		4		8	5	664	11	29	11	2,424	12								
		5		59	39	2,019	33	88	35	6,890	33								
		6		48	32	1,658	27	64	25	5,390	26								
		7	Very much	28	19	1,326	22	48	19	4,498	22								
		Total		151	100	6,111	100	253	100	20,684	100								
11. Which of the following have you done or do you plan to do before you graduate?^o																			
a. Participate in an internship, co-op, field experience, student teaching, or clinical placement	intern	(Means indicate the percentage who responded "Done or in progress.")	Have not decided	23	15	463	8	24	10	2,191	11	10%	7%	.10	6%	.15	8%	.07	
			Do not plan to do	3	2	222	4	10	4	988	5								
			Plan to do	110	73	5,002	82	203	81	15,922	77								
			Done or in progress	15	10	432	7	15	6	1,625	8								
			Total	151	100	6,119	100	252	100	20,726	100								

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			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name ^l	Values ^m	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
b. Hold a formal leadership role in a student organization or group	leader <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	44	29	1,534	25	67	27	5,663	27	11%	12%	-.01	9%	.07	11%	.02	
		Do not plan to do	46	30	1,193	19	70	28	4,973	24								
		Plan to do	44	29	2,687	44	91	36	7,841	38								
		Done or in progress	17	11	707	12	23	9	2,232	11								
		Total	151	100	6,121	100	251	100	20,709	100								
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	learncom <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	56	37	1,751	29	89	35	6,685	32	9%	16% *	-.24	10%	-.03	14%	-.16	
		Do not plan to do	45	30	1,832	30	79	31	6,036	29								
		Plan to do	36	24	1,525	25	60	24	5,129	25								
		Done or in progress	13	9	1,005	16	24	10	2,834	14								
		Total	150	100	6,113	100	252	100	20,684	100								
d. Participate in a study abroad program	abroad <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	55	36	1,604	26	94	37	5,946	29	1%	3%	-.20	1%	-.02	3%	-.17	
		Do not plan to do	59	39	1,747	29	89	35	6,744	33								
		Plan to do	36	24	2,569	42	66	26	7,432	36								
		Done or in progress	1	1	194	3	2	1	576	3								
		Total	151	100	6,114	100	251	100	20,698	100								
e. Work with a faculty member on a research project	research <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	66	44	2,131	35	93	37	7,965	38	7%	6%	.03	4%	.10	5%	.07	
		Do not plan to do	29	19	887	15	48	19	3,582	17								
		Plan to do	46	30	2,738	45	101	40	8,125	39								
		Done or in progress	10	7	357	6	11	4	1,048	5								
		Total	151	100	6,113	100	253	100	20,720	100								
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	54	36	1,490	24	79	31	5,507	27	1%	2%	-.08	1%	-.06	2%	-.09	
		Do not plan to do	9	6	423	7	20	8	1,647	8								
		Plan to do	87	58	4,106	67	151	60	13,231	64								
		Done or in progress	1	1	92	2	3	1	322	2								
		Total	151	100	6,111	100	253	100	20,707	100								

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

servcourse	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ
1 None	76	50	3,538	58	149	59	11,231	54	1.6	1.5	.08	1.5	.07
2 Some	66	44	2,143	35	81	32	7,807	38					
3 Most	8	5	322	5	19	8	1,282	6					
4 All	1	1	102	2	4	2	358	2					
Total	151	100	6,105	100	253	100	20,678	100					

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

Item wording or description				Frequency Distributions								Statistical Comparisons ^k									
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with							
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ			
13. Indicate the quality of your interactions with the following people at your institution.																					
a. Students				QIstudent																	
		1	Poor	0	0	87	1	4	2	300	1	5.6	5.5	.09	5.3	.19	5.4	.10			
		2		2	1	103	2	6	2	376	2										
		3		4	3	280	5	12	5	982	5										
		4		22	15	686	11	38	15	2,410	12										
		5		44	29	1,732	28	70	28	5,725	28										
		6		36	24	1,738	28	64	25	5,578	27										
	7	Excellent	43	28	1,473	24	57	23	5,087	25											
	—	Not applicable	0	0	19	0	2	1	277	1											
		Total		151	100	6,118	100	253	100	20,735	100										
b. Academic advisors				QIadvisor																	
		1	Poor	1	1	155	3	3	1	557	3	5.4	5.3	.12	5.4	.04	5.3	.08			
		2		4	3	226	4	9	4	766	4										
		3		10	7	417	7	19	8	1,404	7										
		4		21	14	879	14	35	14	2,787	13										
		5		33	22	1,365	22	45	18	4,290	21										
		6		36	24	1,384	23	63	25	4,444	21										
	7	Excellent	43	29	1,598	26	72	28	5,958	29											
	—	Not applicable	1	1	89	1	7	3	511	2											
		Total		149	100	6,113	100	253	100	20,717	100										
c. Faculty				QIfaculty																	
		1	Poor	0	0	78	1	3	1	294	1	5.4	5.2	.11	5.4	-.03	5.3	.03			
		2		5	3	149	2	3	1	459	2										
		3		9	6	365	6	13	5	1,187	6										
		4		22	15	918	15	32	13	2,857	14										
		5		35	23	1,825	30	74	29	5,566	27										
		6		48	32	1,622	27	69	27	5,562	27										
	7	Excellent	32	21	1,093	18	57	23	4,522	22											
	—	Not applicable	0	0	63	1	0	0	258	1											
		Total		151	100	6,113	100	251	100	20,705	100										

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Effect size ⁿ	Effect size ⁿ		Effect size ⁿ	Effect size ⁿ	
d. Student services staff (career services, student activities, housing, etc.)	QIstaff	1	Poor	0	0	145	2	10	4	581	3	5.5	5.1 **	.24	5.1 *	.23	5.2 **	.21	
		2		3	2	205	3	6	2	690	3								
		3		10	7	409	7	16	6	1,289	6								
		4		16	11	865	14	39	15	2,771	13								
		5		35	23	1,465	24	46	18	4,488	22								
		6		40	26	1,342	22	46	18	4,482	22								
		7	Excellent	38	25	1,170	19	58	23	4,321	21								
		—	Not applicable	9	6	518	8	32	13	2,095	10								
Total				151	100	6,119	100	253	100	20,717	100								
e. Other administrative staff and offices (registrar, financial aid, etc.)	QIadmin	1	Poor	1	1	169	3	15	6	610	3	5.3	5.0	.16	4.9 *	.20	5.1	.08	
		2		2	1	225	4	8	3	748	4								
		3		15	10	428	7	23	9	1,335	6								
		4		23	15	981	16	29	12	2,991	14								
		5		37	25	1,410	23	46	18	4,604	22								
		6		35	23	1,257	21	55	22	4,469	22								
		7	Excellent	33	22	1,023	17	45	18	4,240	20								
		—	Not applicable	5	3	629	10	30	12	1,726	8								
Total				151	100	6,122	100	251	100	20,723	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	75	1	2	1	313	2	3.2	3.2	.08	3.2	.05	3.1	.12	
		2	Some	20	13	991	16	47	19	3,551	17								
		3	Quite a bit	75	50	2,909	48	107	42	10,040	48								
		4	Very much	55	36	2,141	35	96	38	6,808	33								
		Total				151	100	6,116	100	252	100								20,712
b. Providing support to help students succeed academically	SEacademic	1	Very little	1	1	157	3	5	2	640	3	3.1	3.1	-.02	3.2 *	-.20	3.1	-.02	
		2	Some	35	23	1,207	20	43	17	4,049	20								
		3	Quite a bit	69	46	2,784	46	96	38	9,106	44								
		4	Very much	46	30	1,959	32	108	43	6,898	33								
		Total				151	100	6,107	100	252	100								20,693
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	4	3	241	4	10	4	862	4	3.1	3.1	-.02	3.4 ***	-.30	3.1	-.04	
		2	Some	25	17	1,039	17	24	10	3,435	17								
		3	Quite a bit	72	48	2,519	41	85	34	8,228	40								
		4	Very much	50	33	2,309	38	133	53	8,167	39								
		Total				151	100	6,108	100	252	100								20,692

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

Item wording or description	Variable name ^l	Values ^m	Response options	Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with				
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
d. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	13	9	606	10	35	14	2,390	12	2.6	2.8	-.16	2.7	-.07	2.7	-.09
		2	Some	57	38	1,743	29	72	29	6,198	30							
		3	Quite a bit	54	36	2,211	36	81	32	7,216	35							
		4	Very much	26	17	1,548	25	63	25	4,872	24							
		Total		150	100	6,108	100	251	100	20,676	100							
e. Providing opportunities to be involved socially	SEsocial	1	Very little	3	2	295	5	7	3	1,211	6	3.0	2.9	.07	3.0	-.03	2.9	.10
		2	Some	40	26	1,487	24	60	24	5,040	24							
		3	Quite a bit	62	41	2,591	42	103	41	8,721	42							
		4	Very much	46	30	1,733	28	80	32	5,704	28							
		Total		151	100	6,106	100	250	100	20,676	100							
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	11	7	345	6	15	6	1,376	7	2.8	2.9	-.14	2.9	-.06	2.9	-.09
		2	Some	39	26	1,468	24	73	29	5,082	25							
		3	Quite a bit	67	44	2,495	41	95	38	8,493	41							
		4	Very much	34	23	1,801	29	70	28	5,715	28							
		Total		151	100	6,109	100	253	100	20,666	100							
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	36	24	1,342	22	77	30	4,705	23	2.1	2.3	-.15	2.1	.01	2.3	-.14
		2	Some	70	47	2,447	40	89	35	8,004	39							
		3	Quite a bit	31	21	1,590	26	63	25	5,492	27							
		4	Very much	13	9	717	12	24	9	2,451	12							
		Total		150	100	6,096	100	253	100	20,652	100							
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	10	7	450	7	16	6	2,053	10	2.8	2.8	.03	2.8	.09	2.7	.11
		2	Some	37	25	1,732	28	78	31	5,957	29							
		3	Quite a bit	71	47	2,426	40	106	42	7,997	39							
		4	Very much	33	22	1,500	25	51	20	4,662	23							
		Total		151	100	6,108	100	251	100	20,669	100							
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	19	13	941	15	42	17	3,671	18	2.3	2.4	-.09	2.4	-.01	2.4	-.06
		2	Some	76	50	2,430	40	112	44	7,867	38							
		3	Quite a bit	41	27	1,908	31	67	26	6,276	30							
		4	Very much	15	10	825	14	32	13	2,848	14							
		Total		151	100	6,104	100	253	100	20,662	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
Item wording or description	Variable name ^l	Values ^m	Response options																
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	0	0	19	0	1	0	85	0	14.5	17.2 *** ▼	-.32	15.0	-.06	16.1 *	-.19	
	(Recoded version of tmprep created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	14	9	436	7	28	11	2,029	10								
		8	6-10 hrs	42	28	1,019	17	55	22	3,928	19								
		13	11-15 hrs	37	25	1,290	21	57	23	4,467	22								
		18	16-20 hrs	25	17	1,325	22	46	18	4,275	21								
		23	21-25 hrs	15	10	893	15	40	16	2,710	13								
		28	26-30 hrs	9	6	497	8	17	7	1,436	7								
		33	More than 30 hrs	8	5	624	10	9	4	1,754	8								
			Total	150	100	6,103	100	253	100	20,684	100								
b. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	tmcocurrhrs	0	0 hrs	52	34	1,646	27	101	40	6,571	32	4.8	5.8	-.16	4.7	.02	5.5	-.10	
	(Recoded version of tmcocurr created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	53	35	2,144	35	80	32	6,855	33								
		8	6-10 hrs	25	17	1,132	19	33	13	3,477	17								
		13	11-15 hrs	10	7	611	10	20	8	1,883	9								
		18	16-20 hrs	6	4	288	5	11	4	982	5								
		23	21-25 hrs	2	1	159	3	2	1	459	2								
		28	26-30 hrs	3	2	49	1	4	2	183	1								
		33	More than 30 hrs	0	0	57	1	2	1	230	1								
			Total	151	100	6,086	100	253	100	20,640	100								
c. Working for pay on campus	tmworkonhrs	0	0 hrs	106	70	4,879	80	210	83	16,260	79	2.6	2.3	.06	2.0	.13	2.4	.04	
	(Recoded version of tmworkon created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	9	6	195	3	8	3	867	4								
		8	6-10 hrs	27	18	395	6	16	6	1,416	7								
		13	11-15 hrs	3	2	319	5	9	4	1,067	5								
		18	16-20 hrs	5	3	204	3	7	3	719	3								
		23	21-25 hrs	0	0	78	1	2	1	227	1								
		28	26-30 hrs	1	1	10	0	0	0	53	0								
		33	More than 30 hrs	0	0	19	0	2	1	69	0								
			Total	151	100	6,099	100	254	100	20,678	100								

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with				
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ	
														Mean	Effect size ⁿ		Mean	Effect size ⁿ
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	111	74	4,825	79	178	70	15,385	74	4.0	3.0	.14	5.3	-.14	4.4	-.05
	(Recorded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	6	4	209	3	8	3	722	3							
	8	6-10 hrs	7	5	264	4	10	4	855	4								
	13	11-15 hrs	10	7	276	5	13	5	908	4								
	18	16-20 hrs	7	5	219	4	15	6	952	5								
	23	21-25 hrs	4	3	148	2	15	6	610	3								
	28	26-30 hrs	3	2	75	1	4	2	354	2								
	33	More than 30 hrs	3	2	76	1	10	4	890	4								
Total				151	100	6,092	100	253	100	20,676	100							
Estimated number of hours working for pay	tmworkhrs	(Continuous variable created by NSSE)										6.7	5.3	.14	7.3	-.06	6.8	-.01
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	105	70	3,942	65	164	65	13,447	65	1.6	2.0	-.10	2.0	-.11	2.0	-.10
	(Recorded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	30	20	1,572	26	63	25	5,196	25							
	8	6-10 hrs	11	7	272	4	10	4	996	5								
	13	11-15 hrs	3	2	153	3	10	4	484	2								
	18	16-20 hrs	0	0	85	1	3	1	271	1								
	23	21-25 hrs	1	1	52	1	1	0	156	1								
	28	26-30 hrs	0	0	9	0	1	0	47	0								
	33	More than 30 hrs	0	0	19	0	0	0	79	0								
Total				150	100	6,104	100	252	100	20,676	100							
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	0	0	99	2	4	2	374	2	12.6	13.2	-.07	12.6	.00	13.0	-.05
	(Recorded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	30	20	1,009	17	55	22	3,797	18							
	8	6-10 hrs	31	21	1,635	27	65	26	5,450	26								
	13	11-15 hrs	39	26	1,343	22	54	21	4,353	21								
	18	16-20 hrs	30	20	968	16	31	12	3,056	15								
	23	21-25 hrs	10	7	420	7	15	6	1,409	7								
	28	26-30 hrs	6	4	185	3	7	3	638	3								
	33	More than 30 hrs	3	2	445	7	21	8	1,600	8								
Total				149	100	6,104	100	252	100	20,677	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
g. Providing care for dependents (children, parents, etc.)	tmcarehrs	0	0 hrs	130	86	5,132	84	220	87	16,589	80	1.3	1.5	-.05	1.2	.04	2.1 *	-.14	
	(Recorded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	7	5	422	7	14	6	1,722	8								
	8	6-10 hrs	7	5	186	3	7	3	777	4									
	13	11-15 hrs	2	1	158	3	7	3	544	3									
	18	16-20 hrs	4	3	93	2	1	0	368	2									
	23	21-25 hrs	1	1	56	1	1	0	183	1									
	28	26-30 hrs	0	0	1	0	1	0	63	0									
	33	More than 30 hrs	0	0	46	1	1	0	400	2									
	Total		151	100	6,094	100	252	100	20,646	100									
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	64	42	2,308	38	90	35	8,958	43	3.0	4.0 **	-.18	4.4 **	-.25	3.8 *	-.14	
	(Recorded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	64	42	2,372	39	99	39	7,269	35								
	8	6-10 hrs	16	11	827	14	39	15	2,525	12									
	13	11-15 hrs	3	2	320	5	11	4	959	5									
	18	16-20 hrs	2	1	124	2	7	3	419	2									
	23	21-25 hrs	1	1	65	1	2	1	220	1									
	28	26-30 hrs	0	0	25	0	1	0	85	0									
	33	More than 30 hrs	1	1	69	1	5	2	264	1									
Total		151	100	6,110	100	254	100	20,699	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	34	23	1,470	24	62	25	4,089	20	2.2	2.2	-.01	2.1	.09	2.4	-.15		
	2	Some	71	47	2,736	45	120	47	8,836	43									
	3	About half	32	21	1,193	20	51	20	4,766	23									
	4	Most	9	6	508	8	18	7	2,296	11									
	5	Almost all	5	3	191	3	2	1	693	3									
	Total		151	100	6,098	100	253	100	20,680	100									
tmreadinghrs	(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)																		
												4.7	5.7 *	-.18	4.5	.04	5.8 **	-.20	

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Mean	Effect size ⁿ		Mean	Effect size ⁿ	
	tmreadinghrscol	1	0 hrs	0	0	19	0	1	0	84	0								
	(Collapsed version of tmreadinghrs created by NSSE.)	2	More than zero, up to 5 hrs	104	69	3,576	59	169	67	11,871	58								
		3	More than 5, up to 10 hrs	32	21	1,700	28	61	24	5,764	28								
		4	More than 10, up to 15 hrs	7	5	393	6	15	6	1,489	7								
		5	More than 15, up to 20 hrs	4	3	208	3	5	2	783	4								
		6	More than 20, up to 25 hrs	2	1	125	2	1	0	448	2								
		7	More than 25 hrs	1	1	55	1	0	0	170	1								
			Total	150	100	6,076	100	252	100	20,609	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	12	801	13	29	12	2,174	11	2.4	2.5	-.11	2.7 *	-.26	2.6 **	-.22	
		2	Some	59	40	2,109	35	76	31	6,792	33								
		3	Quite a bit	60	40	2,285	37	92	37	8,097	39								
		4	Very much	12	8	911	15	52	21	3,593	17								
			Total	149	100	6,106	100	249	100	20,656	100								
b. Speaking clearly and effectively	pgspeak	1	Very little	11	7	1,046	17	55	22	3,096	15	2.6	2.4 *	.14	2.5	.11	2.5	.05	
		2	Some	60	40	2,256	37	70	28	7,283	35								
		3	Quite a bit	65	43	1,943	32	84	33	6,955	34								
		4	Very much	15	10	862	14	43	17	3,348	16								
			Total	151	100	6,107	100	252	100	20,682	100								
c. Thinking critically and analytically	pgthink	1	Very little	5	3	236	4	18	7	789	4	2.9	3.0	-.15	3.0	-.05	3.1 *	-.16	
		2	Some	41	27	1,200	20	52	21	4,084	20								
		3	Quite a bit	66	44	2,717	44	105	42	9,021	44								
		4	Very much	39	26	1,959	32	78	31	6,793	33								
			Total	151	100	6,112	100	253	100	20,687	100								
d. Analyzing numerical and statistical information	pganalyze	1	Very little	8	5	375	6	19	8	1,426	7	2.9	2.9	-.07	2.9	-.06	2.9	-.03	
		2	Some	46	30	1,496	25	57	23	5,161	25								
		3	Quite a bit	54	36	2,383	39	99	39	8,075	39								
		4	Very much	43	28	1,844	30	76	30	6,020	29								
			Total	151	100	6,098	100	251	100	20,682	100								

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your first-year students compared with				
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
e. Acquiring job- or work-related knowledge and skills	pgwork	1	Very little	25	17	762	12	45	18	2,626	13	2.5	2.6	-.15	2.6	-.11	2.6 *	-.17
		2	Some	54	36	2,027	33	72	28	6,556	32							
		3	Quite a bit	48	32	2,149	35	80	32	7,232	35							
		4	Very much	24	16	1,168	19	56	22	4,273	21							
		Total		151	100	6,106	100	253	100	20,687	100							
f. Working effectively with others	pgothers	1	Very little	10	7	427	7	29	12	1,531	7	2.7	2.8	-.11	2.7	.05	2.8	-.11
		2	Some	53	35	1,721	28	77	31	5,773	28							
		3	Quite a bit	57	38	2,537	42	95	38	8,421	41							
		4	Very much	30	20	1,414	23	51	20	4,945	24							
		Total		150	100	6,099	100	252	100	20,670	100							
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	25	17	1,010	17	64	25	3,181	15	2.4	2.5	-.16	2.4	.00	2.6 *	-.21
		2	Some	67	45	1,931	32	73	29	6,336	31							
		3	Quite a bit	33	22	2,088	34	71	28	7,140	35							
		4	Very much	24	16	1,076	18	44	17	4,026	19							
		Total		149	100	6,105	100	252	100	20,683	100							
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	20	13	787	13	45	18	2,931	14	2.5	2.6	-.15	2.5	.04	2.6	-.12
		2	Some	65	43	1,929	32	93	37	6,572	32							
		3	Quite a bit	38	25	2,153	35	67	27	6,985	34							
		4	Very much	28	19	1,243	20	46	18	4,185	20							
		Total		151	100	6,112	100	251	100	20,673	100							
i. Solving complex real-world problems	pgprobsolve	1	Very little	21	14	669	11	40	16	2,400	12	2.5	2.7 *	-.19	2.5	-.02	2.7 *	-.17
		2	Some	58	39	1,963	32	90	36	6,657	32							
		3	Quite a bit	47	31	2,198	36	77	30	7,318	35							
		4	Very much	24	16	1,264	21	46	18	4,315	21							
		Total		150	100	6,094	100	253	100	20,690	100							
j. Being an informed and active citizen	pgcitizen	1	Very little	33	22	1,025	17	58	23	3,476	17	2.3	2.5 **	-.22	2.4	-.11	2.5 **	-.22
		2	Some	62	41	2,196	36	84	34	7,395	36							
		3	Quite a bit	40	26	1,925	32	67	27	6,443	31							
		4	Very much	16	11	962	16	41	16	3,388	16							
		Total		151	100	6,108	100	250	100	20,702	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

First-Year Students^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
												Your first-year students compared with							
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
18. How would you evaluate your entire educational experience at this institution?																			
	evalexp	1	Poor	2	1	122	2	11	4	423	2	3.1	3.2	-.10	3.1	.04	3.2	-.10	
		2	Fair	20	13	814	13	43	17	2,818	14								
		3	Good	90	60	3,071	50	117	46	10,215	49								
		4	Excellent	39	26	2,110	34	83	33	7,284	35								
			Total	151	100	6,117	100	254	100	20,740	100								
19. If you could start over again, would you go to the same institution you are now attending?																			
	sameinst	1	Definitely no	2	1	201	3	11	4	702	3	3.3	3.2	.15	3.2 *	.22	3.2	.15	
		2	Probably no	12	8	657	11	35	14	2,366	11								
		3	Probably yes	70	46	2,859	47	110	43	9,380	45								
		4	Definitely yes	67	44	2,429	40	99	39	8,360	40								
			Total	151	100	6,146	100	255	100	20,808	100								
20. Do you intend to return to this institution next year?^f																			
	returnexp		No	2	1	188	3	15	6	762	4	93%	91%	.04	88%	.16	89%	.12	
			Yes	139	93	5,622	91	224	88	18,585	89								
			Not sure	9	6	336	5	16	6	1,445	7								
			Total	150	100	6,146	100	255	100	20,792	100								
			(Means indicate the percentage who responded "Yes.")																

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

Item wording or description	Variable name ^l	Values ^m	Response options	Frequency Distributions								Statistical Comparisons ^k													
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with											
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ							
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 2 3 4	Never Sometimes Often Very often	4 62 34 45	3 43 23 31	448 3,322 2,646 2,045	5 39 31 24	7 41 45 52	5 28 31 36	1,084 8,570 8,172 7,397	4 34 32 29	2.8	2.7	.10	3.0	-.17	2.9	-.05							
Total		145	100	8,461	100	145	100	25,223	100																
b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1 2 3 4	Never Sometimes Often Very often	49 52 27 17	34 36 19 12	2,308 3,197 1,959 996	27 38 23 12	41 52 32 21	28 36 22 14	6,584 9,455 5,963 3,215	26 37 24 13								2.1	2.2	-.12	2.2	-.14	2.2	-.15
Total		145	100	8,460	100	146	100	25,217	100																
c. Come to class without completing readings or assignments	unpreparedr <i>(Reverse-coded version of unprepared created by NSSE.)</i>	1 2 3 4	Very often Often Sometimes Never	8 17 72 48	6 12 50 33	644 1,579 4,553 1,692	8 19 54 20	7 20 77 42	5 14 53 29	1,729 4,063 13,454 6,017	7 16 53 24														
Total		145	100	8,468	100	146	100	25,263	100																
d. Attended an art exhibit, play, or other arts performance (dance, music, etc.)	attendart	1 2 3 4	Never Sometimes Often Very often	73 53 16 3	50 37 11 2	3,858 3,285 934 380	46 39 11 4	76 52 12 5	52 36 8 3	12,246 9,174 2,661 1,162	49 36 11 5	1.6	1.7	-.12	1.6	.03	1.7	-.08							
Total		145	100	8,457	100	145	100	25,243	100																
e. Asked another student to help you understand course material	CLaskhelp	1 2 3 4	Never Sometimes Often Very often	7 43 55 39	5 30 38 27	532 2,752 2,988 2,212	6 32 35 26	12 52 47 35	8 36 32 24	2,676 8,680 8,219 5,720	11 34 32 23								2.9	2.8	.07	2.7	.17	2.7 **	.22
Total		144	100	8,484	100	146	100	25,295	100																
f. Explained course material to one or more students	CLexplain	1 2 3 4	Never Sometimes Often Very often	2 34 58 51	1 23 40 35	181 2,180 3,566 2,557	2 26 42 30	7 43 53 43	5 29 36 29	1,151 7,036 9,932 7,164	5 28 39 28														
Total		145	100	8,484	100	146	100	25,283	100																

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
g. Prepared for exams by discussing or working through course material with other students	CLstudy	1	Never	9	6	828	10	23	16	3,720	15	3.0	2.8	.15	2.7 **	.32	2.7 ***	.29
		2	Sometimes	45	31	2,362	28	43	29	7,398	29							
		3	Often	31	21	2,643	31	41	28	7,374	29							
		4	Very often	60	41	2,637	31	39	27	6,770	27							
		Total		145	100	8,470	100	146	100	25,262	100							
h. Worked with other students on course projects or assignments	CLproject	1	Never	3	2	214	3	9	6	1,403	6	3.3	3.2	.12	3.0 **	.31	3.1 **	.27
		2	Sometimes	22	15	1,508	18	34	23	5,114	20							
		3	Often	45	31	2,936	35	43	30	8,712	34							
		4	Very often	75	52	3,819	45	59	41	10,050	40							
		Total		145	100	8,477	100	145	100	25,279	100							
i. Given a course presentation	present	1	Never	15	10	874	10	20	14	3,055	12	2.6	2.7	-.11	2.6	-.08	2.6	-.08
		2	Sometimes	63	43	3,020	36	50	34	8,677	34							
		3	Often	38	26	2,663	31	37	26	7,851	31							
		4	Very often	29	20	1,923	23	38	26	5,688	23							
		Total		145	100	8,480	100	145	100	25,271	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	4	3	284	3	7	5	915	4	3.1	2.9 *	.20	2.8 *	.30	2.9 **	.22
		2	Sometimes	35	24	2,421	29	52	36	7,371	29							
		3	Often	52	36	3,539	42	47	32	10,467	41							
		4	Very often	54	37	2,222	26	39	27	6,499	26							
		Total		145	100	8,466	100	145	100	25,252	100							
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	28	19	1,364	16	25	17	3,944	16	2.3	2.4	-.12	2.3	-.05	2.4	-.14
		2	Sometimes	67	46	3,735	44	70	48	11,011	44							
		3	Often	35	24	2,321	27	33	23	7,045	28							
		4	Very often	15	10	1,045	12	18	12	3,243	13							
		Total		145	100	8,465	100	146	100	25,243	100							
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIDiverse	1	Never	65	45	2,679	32	54	38	7,458	30	1.8	2.0 ***	-.28	2.0	-.20	2.1 ***	-.32
		2	Sometimes	54	37	3,549	42	57	40	10,807	43							
		3	Often	20	14	1,587	19	19	13	4,841	19							
		4	Very often	6	4	650	8	14	10	2,141	8							
		Total		145	100	8,465	100	144	100	25,247	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Effect size ⁿ	Effect size ⁿ		Effect size ⁿ	Effect size ⁿ	
d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	15	10	794	9	23	16	2,243	9	2.5	2.6	-.11	2.5	.01	2.6	-.13	
		2	Sometimes	66	46	3,069	36	50	35	9,065	36								
		3	Often	39	27	3,318	39	46	32	9,877	39								
		4	Very often	25	17	1,286	15	24	17	4,056	16								
		Total		145	100	8,467	100	143	100	25,241	100								
e. Tried to better understand someone else's views by imagining how an issue looks from their perspective	RIperspect	1	Never	15	10	524	6	11	8	1,506	6	2.6	2.8 *	-.21	2.7	-.12	2.8 *	-.22	
		2	Sometimes	54	38	2,596	31	52	36	7,726	31								
		3	Often	49	34	3,615	43	51	35	10,659	42								
		4	Very often	26	18	1,734	20	31	21	5,351	21								
		Total		144	100	8,469	100	145	100	25,242	100								
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	4	3	314	4	8	6	907	4	2.8	2.8	-.04	2.8	.02	2.8	-.04	
		2	Sometimes	55	38	2,608	31	47	33	7,925	31								
		3	Often	51	35	3,724	44	57	40	10,959	43								
		4	Very often	34	24	1,817	21	32	22	5,432	22								
		Total		144	100	8,463	100	144	100	25,223	100								
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	3	2	165	2	5	4	437	2	3.1	3.0	.05	3.0	.16	3.1	.03	
		2	Sometimes	33	23	1,789	21	41	29	5,179	21								
		3	Often	58	40	4,034	48	52	37	11,969	48								
		4	Very often	51	35	2,466	29	44	31	7,598	30								
		Total		145	100	8,454	100	142	100	25,183	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	33	23	1,837	22	29	20	5,417	21	2.4	2.3	.08	2.4	-.07	2.3	.06	
		2	Sometimes	53	37	3,569	42	50	35	10,481	42								
		3	Often	31	22	1,874	22	35	25	5,661	22								
		4	Very often	27	19	1,181	14	28	20	3,661	15								
		Total		144	100	8,461	100	142	100	25,220	100								
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	50	34	3,313	39	67	47	10,428	41	2.2	2.0 *	.19	2.0	.21	2.0 *	.22	
		2	Sometimes	40	28	2,762	33	37	26	7,989	32								
		3	Often	33	23	1,463	17	19	13	4,133	16								
		4	Very often	22	15	911	11	21	15	2,661	11								
		Total		145	100	8,449	100	144	100	25,211	100								

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Effect size ⁿ	Effect size ⁿ		Effect size ⁿ	Effect size ⁿ	
c. Discussed course topics, ideas, or concepts with a faculty member outside of class	SFdiscuss	1	Never	28	19	1,975	23	23	16	6,070	24	2.4	2.2 *	.21	2.4	-.03	2.2 *	.18	
		2	Sometimes	58	40	3,815	45	66	46	10,794	43								
		3	Often	38	26	1,865	22	30	21	5,709	23								
		4	Very often	21	14	782	9	24	17	2,590	10								
		Total		145	100	8,437	100	143	100	25,163	100								
d. Discussed your academic performance with a faculty member	SFperform	1	Never	39	27	2,347	28	27	19	6,645	26	2.1	2.1	.04	2.3 *	-.26	2.1	-.01	
		2	Sometimes	67	46	3,894	46	63	44	11,435	45								
		3	Often	26	18	1,594	19	33	23	4,982	20								
		4	Very often	13	9	617	7	21	15	2,126	8								
		Total		145	100	8,452	100	144	100	25,188	100								
4. During the current school year, how much has your coursework emphasized the following?																			
a. Memorizing course material	memorize	1	Very little	9	6	792	9	13	9	2,357	9	2.7	2.6	.11	2.7	.00	2.6	.11	
		2	Some	50	34	3,101	37	47	33	9,259	37								
		3	Quite a bit	60	41	3,146	37	53	37	9,417	37								
		4	Very much	26	18	1,424	17	31	22	4,187	17								
		Total		145	100	8,463	100	144	100	25,220	100								
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	2	1	209	2	7	5	724	3	3.3	3.2	.11	3.1	.20	3.2 *	.18	
		2	Some	18	12	1,264	15	25	17	4,174	17								
		3	Quite a bit	60	41	3,520	42	53	37	10,832	43								
		4	Very much	65	45	3,457	41	59	41	9,465	38								
		Total		145	100	8,450	100	144	100	25,195	100								
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	9	6	399	5	10	7	1,156	5	3.0	3.0	.01	3.0	-.02	3.0	.02	
		2	Some	31	21	1,871	22	24	17	5,614	22								
		3	Quite a bit	53	37	3,397	40	61	42	10,425	41								
		4	Very much	52	36	2,783	33	49	34	7,970	32								
		Total		145	100	8,450	100	144	100	25,165	100								
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	26	18	1,247	15	16	11	3,171	13	2.4	2.5	-.10	2.6	-.18	2.6 *	-.17	
		2	Some	54	37	2,966	35	51	35	8,582	34								
		3	Quite a bit	41	28	2,767	33	51	35	8,794	35								
		4	Very much	24	17	1,464	17	26	18	4,608	18								
		Total		145	100	8,444	100	144	100	25,155	100								

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
e. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	9	6	621	7	10	7	1,675	7	2.8	2.8	.00	2.7	.03	2.8	-.03
		2	Some	51	35	2,590	31	49	34	7,461	30							
		3	Quite a bit	50	34	3,351	40	54	38	10,391	41							
		4	Very much	35	24	1,883	22	31	22	5,634	22							
		Total		145	100	8,445	100	144	100	25,161	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	6	4	283	3	5	3	800	3	2.9	3.0	-.10	3.0	-.20	3.0	-.15
		2	Some	37	26	1,925	23	29	20	5,485	22							
		3	Quite a bit	69	48	3,994	47	63	44	11,528	46							
		4	Very much	33	23	2,244	27	46	32	7,360	29							
		Total		145	100	8,446	100	143	100	25,173	100							
b. Taught course sessions in an organized way	ETorganize	1	Very little	6	4	388	5	6	4	1,159	5	2.8	2.9	-.11	2.9	-.15	2.9 *	-.17
		2	Some	42	29	2,102	25	44	31	5,697	23							
		3	Quite a bit	71	49	3,983	47	48	33	11,674	46							
		4	Very much	26	18	1,966	23	46	32	6,632	26							
		Total		145	100	8,439	100	144	100	25,162	100							
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	3	2	329	4	8	6	999	4	3.0	3.0	.02	3.1	-.09	3.0	-.02
		2	Some	33	23	1,913	23	28	19	5,302	21							
		3	Quite a bit	68	47	3,629	43	51	35	10,819	43							
		4	Very much	41	28	2,564	30	57	40	8,028	32							
		Total		145	100	8,435	100	144	100	25,148	100							
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	31	22	1,408	17	18	13	3,710	15	2.2	2.4 **	-.25	2.7 ***	-.53	2.5 ***	-.35
		2	Some	67	47	3,220	38	48	33	8,889	35							
		3	Quite a bit	32	22	2,563	30	36	25	7,966	32							
		4	Very much	14	10	1,251	15	42	29	4,597	18							
		Total		144	100	8,442	100	144	100	25,162	100							
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	17	12	906	11	10	7	2,427	10	2.5	2.6	-.07	2.8 **	-.32	2.7 *	-.17
		2	Some	58	40	3,152	37	45	31	8,402	33							
		3	Quite a bit	49	34	3,058	36	54	38	9,437	38							
		4	Very much	21	14	1,323	16	35	24	4,880	19							
		Total		145	100	8,439	100	144	100	25,146	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
												Your seniors compared with							
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
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	2	1	374	4	9	6	1,264	5	3.1	3.0	.10	2.8 *	.27	2.9 *	.17	
		2	Sometimes	35	24	1,983	24	46	32	6,428	26								
		3	Often	57	39	3,401	40	46	32	10,057	40								
		4	Very often	51	35	2,677	32	42	29	7,374	29								
			Total	145	100	8,435	100	143	100	25,123	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	21	14	1,740	21	32	22	5,264	21	2.5	2.4	.11	2.4	.11	2.4	.13	
		2	Sometimes	53	37	2,840	34	47	33	8,568	34								
		3	Often	42	29	2,270	27	34	24	6,843	27								
		4	Very often	29	20	1,569	19	30	21	4,409	18								
			Total	145	100	8,419	100	143	100	25,084	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	21	15	1,086	13	25	17	3,493	14	2.6	2.6	-.01	2.5	.09	2.5	.05	
		2	Sometimes	50	35	2,975	35	51	35	9,443	38								
		3	Often	44	31	2,912	35	44	31	8,181	33								
		4	Very often	28	20	1,433	17	24	17	3,957	16								
			Total	143	100	8,406	100	144	100	25,074	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	930	11	26	18	2,695	11	5.6	6.3	-.11	6.4	-.11	6.5	-.13	
		1.5	1-2	41	28	1,892	23	31	22	5,629	22								
	(Recorded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	4	3-5	35	24	2,374	28	27	19	7,004	28								
		8	6-10	25	17	1,590	19	30	21	4,711	19								
		13	11-15	11	8	724	9	12	8	2,217	9								
		18	16-20	5	3	351	4	6	4	1,109	4								
		23	More than 20	8	6	544	6	11	8	1,700	7								
			Total	145	100	8,405	100	143	100	25,065	100								
b. Between 6 and 10 pages	wrmednum	0	None	71	49	2,544	30	57	40	7,802	31	3.0	3.4	-.09	2.9	.03	3.3	-.06	
		1.5	1-2	26	18	2,623	31	36	25	7,973	32								
	(Recorded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	4	3-5	19	13	1,641	20	25	18	4,836	19								
		8	6-10	19	13	919	11	17	12	2,596	10								
		13	11-15	5	3	339	4	4	3	942	4								
		18	16-20	2	1	140	2	0	0	356	1								
		23	More than 20	3	2	178	2	3	2	496	2								
			Total	145	100	8,384	100	142	100	25,001	100								

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ	
														Mean	Effect size ⁿ		Mean	Effect size ⁿ
c. 11 pages or more	wrlongnum	0	None	84	58	3,698	44	77	53	12,167	48	2.4	2.6	-.03	.01	2.3	.04	
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	21	15	2,540	30	33	23	7,425	30							
	4	3-5	18	13	1,071	13	15	10	2,751	11								
	8	6-10	11	8	575	7	12	8	1,374	5								
	13	11-15	4	3	276	3	2	1	688	3								
	18	16-20	6	4	88	1	0	0	242	1								
	23	More than 20	0	0	173	2	5	3	445	2								
	Total			144	100	8,421	100	144	100	25,092	100							
Estimated number of assigned pages of student writing.	wpages											77.8	84.6	-.06	.00	79.0	-.01	
				(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	7	5	398	5	9	6	1,654	7	3.0	3.1	-.13	.02	3.0	-.01	
		2	Sometimes	37	26	1,836	22	36	25	6,223	25							
		3	Often	48	34	2,543	30	42	29	7,486	30							
		4	Very often	51	36	3,648	43	57	40	9,747	39							
			Total	143	100	8,425	100	144	100	25,110	100							
b. People from an economic background other than your own	DDeconomic	1	Never	6	4	399	5	5	3	1,449	6	3.0	3.1	-.05	.03	3.0	.04	
		2	Sometimes	28	19	1,785	21	33	23	5,909	24							
		3	Often	65	45	2,946	35	52	36	8,751	35							
		4	Very often	46	32	3,279	39	53	37	8,947	36							
			Total	145	100	8,409	100	143	100	25,056	100							
c. People with religious beliefs other than your own	DDreligion	1	Never	8	6	438	5	4	3	1,861	7	3.0	3.1	-.07	.07	2.9	.07	
		2	Sometimes	37	26	1,826	22	39	27	6,445	26							
		3	Often	44	30	2,744	33	42	29	7,862	31							
		4	Very often	56	39	3,408	40	59	41	8,901	36							
			Total	145	100	8,416	100	144	100	25,069	100							
d. People with political views other than your own	DDpolitical	1	Never	7	5	537	6	8	6	1,841	7	3.0	2.9	.12	.02	2.9 *	.17	
		2	Sometimes	30	21	2,338	28	34	24	7,223	29							
		3	Often	57	39	2,637	31	48	33	7,946	32							
		4	Very often	51	35	2,913	35	54	38	8,086	32							
			Total	145	100	8,425	100	144	100	25,096	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech				Carnegie Class				Quality Assurance		NSSE 2018 & 2019		Your seniors compared with			
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech	Carnegie Class	Quality Assurance	NSSE 2018 & 2019	Effect size ⁿ	Effect size ⁿ	Effect size ⁿ	
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Mean	Mean	Mean	Mean		
9. During the current school year, about how often have you done the following?																			
a. Identified key information from reading assignments	LSreading	1	Never	9	6	514	6	9	6	1,355	5	2.7	2.8	-.16	2.9	-.22	2.8 *	-.21	
		2	Sometimes	53	37	2,539	30	39	27	7,106	28								
		3	Often	60	41	3,473	41	60	42	10,647	42								
		4	Very often	23	16	1,897	23	36	25	5,986	24								
		Total		145	100	8,423	100	144	100	25,094	100								
b. Reviewed your notes after class	LSnotes	1	Never	8	6	764	9	7	5	2,334	9	2.9	2.7 **	.27	2.9	.09	2.7 **	.26	
		2	Sometimes	38	26	2,981	35	46	32	8,736	35								
		3	Often	52	36	2,722	32	51	35	8,067	32								
		4	Very often	46	32	1,961	23	40	28	5,964	24								
		Total		144	100	8,428	100	144	100	25,101	100								
c. Summarized what you learned in class or from course materials	LSsummary	1	Never	11	8	913	11	7	5	2,615	10	2.7	2.6	.10	2.8	-.10	2.6	.07	
		2	Sometimes	55	38	3,094	37	52	36	8,865	35								
		3	Often	44	31	2,800	33	48	34	8,667	35								
		4	Very often	34	24	1,617	19	36	25	4,937	20								
		Total		144	100	8,424	100	143	100	25,084	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	124	1	4	3	360	1	5.6	5.4	.12	5.8	-.18	5.4	.11	
		2		3	2	168	2	0	0	546	2								
		3		7	5	477	6	4	3	1,372	5								
		4		13	9	967	12	16	11	2,842	11								
		5		41	28	2,414	29	24	17	7,200	29								
		6		38	26	2,155	26	34	24	6,447	26								
		7	Very much	42	29	2,101	25	60	42	6,286	25								
		Total		145	100	8,406	100	142	100	25,053	100								
11. Which of the following have you done or do you plan to do before you graduate?^o																			
a. Participate in an internship, co-op, field experience, student teaching, or clinical placement	intern	Have not decided		10	7	472	6	11	8	1,829	7	57%	57%	.00	51%	.13	54%	.07	
		Do not plan to do		25	17	906	11	23	16	3,341	13								
		Plan to do		27	19	2,220	26	37	26	6,435	26								
		Done or in progress		83	57	4,833	57	73	51	13,505	54								
		Total		145	100	8,431	100	144	100	25,110	100								

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering Tennessee Technological University

Seniors^a in Engineering

			Frequency Distributions								Statistical Comparisons ^k							
			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name ^l	Values ^m	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
b. Hold a formal leadership role in a student organization or group	leader <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	11	8	736	9	25	18	2,438	10	47%	45%	.04	32% *	.30	40%	.14	
		Do not plan to do	58	40	3,110	37	59	42	10,489	42								
		Plan to do	8	6	769	9	12	8	2,101	8								
		Done or in progress	68	47	3,797	45	46	32	10,043	40								
		Total	145	100	8,412	100	142	100	25,071	100								
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	learncom <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	18	12	905	11	22	15	3,153	13	20%	24%	-.09	21%	-.02	22%	-.05	
		Do not plan to do	90	62	4,698	56	75	52	14,024	56								
		Plan to do	8	6	820	10	16	11	2,345	9								
		Done or in progress	29	20	1,990	24	30	21	5,540	22								
		Total	145	100	8,413	100	143	100	25,062	100								
d. Participate in a study abroad program	abroad <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	13	9	709	8	17	12	2,508	10	9%	17% *	-.23	10%	-.03	13%	-.13	
		Do not plan to do	114	79	5,675	67	103	72	17,579	70								
		Plan to do	5	3	634	8	9	6	1,704	7								
		Done or in progress	13	9	1,398	17	14	10	3,289	13								
		Total	145	100	8,416	100	143	100	25,080	100								
e. Work with a faculty member on a research project	research <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	16	11	1,143	14	25	18	3,803	15	37%	31%	.12	26% *	.24	27% **	.21	
		Do not plan to do	56	39	3,334	40	62	44	10,866	43								
		Plan to do	19	13	1,299	15	18	13	3,582	14								
		Done or in progress	54	37	2,652	31	37	26	6,838	27								
		Total	145	100	8,428	100	142	100	25,089	100								
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone <i>(Means indicate the percentage who responded "Done or in progress.")</i>	Have not decided	1	1	394	5	12	8	1,530	6	65%	56% *	.18	49% **	.32	54% **	.23	
		Do not plan to do	4	3	654	8	17	12	2,565	10								
		Plan to do	46	32	2,662	32	44	31	7,556	30								
		Done or in progress	93	65	4,709	56	70	49	13,429	54								
		Total	144	100	8,419	100	143	100	25,080	100								

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

servcourse	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ
1 None	68	47	4,786	57	81	57	13,314	53	1.6	1.5	.06	1.5	.10
2 Some	73	50	3,034	36	56	39	9,930	40					
3 Most	4	3	469	6	3	2	1,426	6					
4 All	0	0	126	1	3	2	387	2					
Total	145	100	8,415	100	143	100	25,057	100					

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Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

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				Tennessee Tech				Carnegie Class				Quality Assurance				NSSE 2018 & 2019				Tennessee Tech				Carnegie Class				Quality Assurance				NSSE 2018 & 2019																																																																			
				Count				Count				Count				Count				Mean				Mean				Mean				Mean																																																																			
				%				%				%				%				Effect size ⁿ				Effect size ⁿ				Effect size ⁿ				Effect size ⁿ																																																																			
Item wording or description	Variable name ^l	Values ^m	Response options																																																																																																
13. Indicate the quality of your interactions with the following people at your institution.																																																																																																			
a. Students	QIstudent	1	Poor	2	1	97	1	5	3	322	1	5.8	5.6 *	.18	5.6	.16	5.6 *	.19	2	1	109	1	2	1	412	2	3	1	314	4	3	2	995	4	4	7	10	861	10	11	8	2,561	10	5	22	2,193	26	38	26	6,349	25	6	33	2,434	29	37	26	6,996	28	7	34	2,382	28	46	32	7,073	28	—	Not applicable	0	0	43	1	2	1	408	2	Total	144	100	8,433	100	144	100	25,116	100													
b. Academic advisors	QIadvisor	1	Poor	4	3	460	5	10	7	1,278	5								5.1	5.0	.09	5.2	-.03	5.1	.02	2	8	535	6	6	4	1,388	6	3	9	739	9	13	9	2,027	8	4	13	1,185	14	16	11	3,284	13	5	20	1,750	21	21	15	4,847	19	6	16	1,544	18	24	17	4,740	19	7	31	2,156	26	51	35	7,182	29	—	Not applicable	0	0	62	1	3	2	360	1	Total	144	100	8,431	100	144	100	25,106	100							
c. Faculty	QIfaculty	1	Poor	5	3	182	2	7	5	497	2															4.9	5.1	-.12	5.4 *	-.29	5.3 **	-.24	2	6	270	3	5	3	760	3	3	8	590	7	5	3	1,548	6	4	15	1,463	17	21	15	3,666	15	5	28	2,412	29	26	18	6,548	26	6	23	2,108	25	31	22	6,484	26	7	16	1,360	16	48	33	5,432	22	—	Not applicable	0	0	40	0	1	1	168	1	Total	145	100	8,425	100	144	100	25,103	100

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				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ		Mean	Effect size ⁿ		
														Effect size ⁿ	Effect size ⁿ		Effect size ⁿ	Effect size ⁿ	
d. Student services staff (career services, student activities, housing, etc.)	QIstaff	1	Poor	10	7	376	4	5	3	1,145	5	4.8	4.8	.00	5.1	-.12	4.9	-.03	
		2		7	5	385	5	6	4	1,142	5								
		3		12	8	640	8	7	5	1,846	7								
		4		14	10	1,344	16	21	15	3,601	14								
		5		36	25	1,776	21	28	19	4,903	20								
		6		20	14	1,481	18	17	12	4,369	17								
		7	Excellent	29	20	1,321	16	31	22	4,265	17								
		—	Not applicable	17	12	1,099	13	29	20	3,830	15								
	Total			145	100	8,422	100	144	100	25,101	100								
e. Other administrative staff and offices (registrar, financial aid, etc.)	QIadmin	1	Poor	14	10	455	5	10	7	1,308	5	4.9	4.7	.09	4.8	.04	4.9	.00	
		2		6	4	452	5	8	6	1,259	5								
		3		13	9	760	9	13	9	1,992	8								
		4		15	10	1,394	17	24	17	3,894	16								
		5		28	19	1,912	23	27	19	5,434	22								
		6		34	23	1,522	18	26	18	4,772	19								
		7	Excellent	32	22	1,245	15	31	22	4,720	19								
		—	Not applicable	3	2	681	8	5	3	1,724	7								
	Total			145	100	8,421	100	144	100	25,103	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	3	2	155	2	5	3	526	2	3.1	3.2	-.05	3.2	-.06	3.1	-.01	
		2	Some	26	18	1,391	17	22	15	4,408	18								
		3	Quite a bit	64	44	3,669	44	58	40	11,108	44								
		4	Very much	52	36	3,209	38	59	41	9,062	36								
			Total			145	100	8,424	100	144	100								25,104
b. Providing support to help students succeed academically	SEacademic	1	Very little	12	8	545	6	13	9	1,545	6	2.7	2.8	-.09	2.9	-.18	2.9	-.15	
		2	Some	44	30	2,425	29	31	22	6,701	27								
		3	Quite a bit	61	42	3,615	43	60	42	10,736	43								
		4	Very much	28	19	1,830	22	40	28	6,091	24								
			Total			145	100	8,415	100	144	100								25,073
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	16	11	862	10	13	9	2,459	10	2.7	2.7	-.06	2.9 *	-.24	2.8	-.11	
		2	Some	43	30	2,541	30	33	23	7,114	28								
		3	Quite a bit	61	42	3,211	38	55	39	9,477	38								
		4	Very much	25	17	1,795	21	41	29	6,012	24								
			Total			145	100	8,409	100	142	100								25,062

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

Item wording or description				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
d. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	33	23	1,551	18	30	21	4,815	19	2.2	2.5 **	-.26	2.3	-.13	2.5 **	-.24
		2	Some	63	43	2,826	34	55	38	8,395	34							
		3	Quite a bit	33	23	2,476	29	39	27	7,399	30							
		4	Very much	16	11	1,549	18	20	14	4,422	18							
		Total		145	100	8,402	100	144	100	25,031	100							
e. Providing opportunities to be involved socially	SEsocial	1	Very little	12	8	784	9	20	14	2,629	10	2.6	2.7	-.15	2.8	-.18	2.7	-.11
		2	Some	59	41	2,458	29	31	22	7,457	30							
		3	Quite a bit	48	33	3,286	39	54	38	9,601	38							
		4	Very much	26	18	1,878	22	39	27	5,369	21							
		Total		145	100	8,406	100	144	100	25,056	100							
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	26	18	1,072	13	17	12	3,442	14	2.4	2.7 **	-.24	2.7 *	-.27	2.6 *	-.21
		2	Some	50	34	2,517	30	45	31	7,543	30							
		3	Quite a bit	50	34	3,092	37	48	33	9,056	36							
		4	Very much	19	13	1,728	21	34	24	4,991	20							
		Total		145	100	8,409	100	144	100	25,032	100							
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	70	49	3,274	39	51	36	9,373	37	1.7	1.9 **	-.23	2.0 *	-.29	2.0 **	-.27
		2	Some	53	37	3,085	37	57	40	9,042	36							
		3	Quite a bit	13	9	1,459	17	22	15	4,613	18							
		4	Very much	8	6	581	7	13	9	2,009	8							
		Total		144	100	8,399	100	143	100	25,037	100							
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	29	20	1,154	14	20	14	4,275	17	2.3	2.6 **	-.27	2.6 *	-.26	2.5 *	-.17
		2	Some	57	39	2,783	33	50	35	8,393	34							
		3	Quite a bit	42	29	2,910	35	45	31	8,238	33							
		4	Very much	17	12	1,561	19	28	20	4,127	16							
		Total		145	100	8,408	100	143	100	25,033	100							
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	53	37	2,039	24	33	23	6,532	26	2.0	2.2 **	-.25	2.2 *	-.25	2.2 **	-.22
		2	Some	54	37	3,468	41	62	43	9,961	40							
		3	Quite a bit	27	19	2,108	25	34	24	6,135	25							
		4	Very much	11	8	790	9	14	10	2,403	10							
		Total		145	100	8,405	100	143	100	25,031	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k																				
				Tennessee Tech				Carnegie Class				Quality Assurance		NSSE 2018 & 2019		Your seniors compared with																
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019														
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ														
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 <i>(Recorded version of tmprep created by NSSE. Values are estimated number of hours per week.)</i>	0 3 8 13 18 23 28 33	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs	0 7 30 28 27 15 10 27	0 5 21 19 19 10 7 19	35 712 1,388 1,461 1,609 1,161 715 1,328	0 8 17 17 19 14 9 16	3 15 23 27 30 18 9 18	2 10 16 19 21 13 6 13	137 2,459 4,575 4,569 4,692 3,266 1,989 3,379	1 10 18 18 19 13 8 13	18.2	18.0	.02	16.6	.17	17.2	.12														
Total				144	100	8,409	100	143	100	25,066	100																					
b. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	tmcocurrhrs <i>(Recorded version of tmcocurr created by NSSE. Values are estimated number of hours per week.)</i>	0 3 8 13 18 23 28 33	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs	57 51 20 8 5 3 1 0	39 35 14 6 3 2 1 0	2,672 2,690 1,402 810 423 240 65 103	32 32 17 10 5 3 1 1	74 32 16 11 8 7 5 1 1	52 22 11 8 5 1 1 1	9,631 7,461 3,522 2,008 1,152 639 242 380	38 30 14 8 5 3 1 2								4.2	5.7 **	-.23	4.0	.02	5.2 *	-.15							
Total				145	100	8,405	100	143	100	25,035	100																					
c. Working for pay on campus	tmworkonhrs <i>(Recorded version of tmworkon created by NSSE. Values are estimated number of hours per week.)</i>	0 3 8 13 18 23 28 33	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs	78 12 28 7 17 1 1 0	54 8 19 5 12 1 1 0	5,318 412 879 782 674 215 57 79	63 5 10 9 8 3 1 1	106 5 12 5 9 2 1 3	74 3 8 3 6 1 1 2	16,487 1,442 2,449 1,914 1,845 496 161 272	66 6 10 8 7 2 1 1															4.9	4.7	.03	3.6	.19	4.3	.09
Total				144	100	8,416	100	143	100	25,066	100																					

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

Item wording or description				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	86	60	4,920	58	56	39	13,103	52	6.5	7.5	-0.9	13.9 ***	-0.63	9.8 ***	-0.26
	(Recorded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	7	5	412	5	4	3	1,160	5							
	8	6-10 hrs	14	10	496	6	4	3	1,379	6								
	13	11-15 hrs	9	6	558	7	11	8	1,514	6								
	18	16-20 hrs	10	7	717	9	19	13	2,141	9								
	23	21-25 hrs	7	5	440	5	12	8	1,401	6								
	28	26-30 hrs	3	2	252	3	9	6	903	4								
	33	More than 30 hrs	8	6	621	7	28	20	3,468	14								
Total				144	100	8,416	100	143	100	25,069	100							
Estimated number of hours working for pay				tmworkhrs								11.4	12.2	-0.06	17.4 ***	-0.47	14.0 **	-0.20
(Continuous variable created by NSSE)																		
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	96	67	5,158	61	83	58	15,457	62	1.6	2.3 **	-0.14	2.7 *	-0.27	2.2 **	-0.14
	(Recorded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	35	24	2,395	28	38	27	7,041	28							
	8	6-10 hrs	10	7	387	5	11	8	1,205	5								
	13	11-15 hrs	2	1	191	2	7	5	581	2								
	18	16-20 hrs	1	1	133	2	1	1	362	1								
	23	21-25 hrs	0	0	83	1	2	1	222	1								
	28	26-30 hrs	0	0	25	0	0	0	55	0								
	33	More than 30 hrs	0	0	35	0	1	1	142	1								
Total				144	100	8,407	100	143	100	25,065	100							
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	6	4	234	3	11	8	789	3	10.9	11.8	-0.11	10.0	.11	11.5	-0.07
	(Recorded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	38	26	1,808	22	37	26	5,876	23							
	8	6-10 hrs	35	24	2,387	28	40	28	7,011	28								
	13	11-15 hrs	30	21	1,691	20	26	18	4,889	20								
	18	16-20 hrs	18	13	1,159	14	13	9	3,139	13								
	23	21-25 hrs	10	7	465	6	9	6	1,305	5								
	28	26-30 hrs	0	0	221	3	2	1	597	2								
	33	More than 30 hrs	7	5	444	5	5	3	1,463	6								
Total				144	100	8,409	100	143	100	25,069	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k										
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with								
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ				
g. Providing care for dependents (children, parents, etc.)	tmcarehrs	0	0 hrs	119	83	6,523	78	87	61	17,905	72	2.2	2.9	-.10	6.1 ***	-.44	4.3 ***	-.22				
	(Recorded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	10	7	690	8	18	13	2,302	9											
	8	6-10 hrs	2	1	320	4	5	3	1,124	4												
	13	11-15 hrs	3	2	199	2	9	6	762	3												
	18	16-20 hrs	5	3	189	2	7	5	703	3												
	23	21-25 hrs	2	1	119	1	2	1	392	2												
	28	26-30 hrs	0	0	47	1	2	1	217	1												
	33	More than 30 hrs	3	2	303	4	13	9	1,620	6												
	Total			144	100	8,390	100	143	100	25,025	100											
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	10	7	840	10	17	12	4,782	19	4.2	5.5 ***	-.23	6.3 **	-.38	5.0 *	-.14				
	(Recorded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	107	74	4,857	58	74	52	13,100	52											
	8	6-10 hrs	19	13	1,671	20	26	18	4,373	17												
	13	11-15 hrs	5	3	590	7	13	9	1,488	6												
	18	16-20 hrs	2	1	207	2	5	3	588	2												
	23	21-25 hrs	0	0	109	1	5	3	277	1												
	28	26-30 hrs	0	0	42	0	0	0	111	0												
	33	More than 30 hrs	1	1	103	1	3	2	374	1												
	Total			144	100	8,419	100	143	100	25,093	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	62	43	2,918	35	57	40	7,317	29	1.8	2.0 *	-.20	2.1 *	-.23	2.2 ***	-.35				
		2	Some	54	38	3,352	40	44	31	9,565	38											
		3	About half	19	13	1,299	15	23	16	4,898	20											
		4	Most	9	6	640	8	14	10	2,414	10											
		5	Almost all	0	0	207	2	5	3	876	3											
			Total			144	100	8,416	100	143	100								25,070	100		
	tmreadinghrs	(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)														4.5	5.3 *	-.16	5.6	-.21	5.7 ***	-.22

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

Item wording or description	Variable name ^l	Values ^m	Response options	Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
				Count	%	Count	%	Count	%	Count	%	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
	tmreadinghrscol	1	0 hrs	0	0	35	0	3	2	137	1								
	<i>(Collapsed version of tmreadinghrs created by NSSE.)</i>	2	More than zero, up to 5 hrs	102	71	5,254	63	88	62	14,875	60								
		3	More than 5, up to 10 hrs	29	20	2,101	25	31	22	6,371	26								
		4	More than 10, up to 15 hrs	5	3	435	5	9	6	1,647	7								
		5	More than 15, up to 20 hrs	6	4	301	4	6	4	1,031	4								
		6	More than 20, up to 25 hrs	1	1	186	2	4	3	637	3								
		7	More than 25 hrs	0	0	74	1	2	1	286	1								
			Total			143	100	8,386	100	143	100	24,984	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	27	19	915	11	15	10	2,544	10	2.4	2.7 ***	-.29	2.7 **	-.33	2.7 ***	-.34
		2	Some	51	35	2,586	31	44	31	7,358	29							
		3	Quite a bit	46	32	3,176	38	49	34	9,507	38							
		4	Very much	20	14	1,724	21	35	24	5,620	22							
		Total		144	100	8,401	100	143	100	25,029	100							
b. Speaking clearly and effectively	pgspeak	1	Very little	28	20	980	12	17	12	2,892	12	2.4	2.7 ***	-.32	2.8 ***	-.44	2.7 ***	-.35
		2	Some	48	34	2,588	31	35	24	7,417	30							
		3	Quite a bit	53	37	3,019	36	53	37	8,996	36							
		4	Very much	14	10	1,824	22	38	27	5,755	23							
		Total		143	100	8,411	100	143	100	25,060	100							
c. Thinking critically and analytically	pgthink	1	Very little	6	4	253	3	6	4	837	3	3.3	3.3	-.02	3.3	-.06	3.3	.02
		2	Some	18	13	1,066	13	21	15	3,394	14							
		3	Quite a bit	49	34	2,992	36	35	24	9,033	36							
		4	Very much	71	49	4,102	49	81	57	11,808	47							
		Total		144	100	8,413	100	143	100	25,072	100							
d. Analyzing numerical and statistical information	pganalyze	1	Very little	4	3	300	4	8	6	1,086	4	3.3	3.3	.04	3.2	.13	3.2	.13
		2	Some	23	16	1,179	14	24	17	4,091	16							
		3	Quite a bit	39	27	2,667	32	41	29	8,197	33							
		4	Very much	78	54	4,270	51	70	49	11,714	47							
		Total		144	100	8,416	100	143	100	25,088	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

Item wording or description				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
e. Acquiring job- or work-related knowledge and skills	pgwork	1	Very little	12	8	790	9	12	8	2,202	9	2.9	2.9	.05	3.0	-.04	2.9	.01
		2	Some	29	20	2,044	24	37	26	5,897	24							
		3	Quite a bit	58	40	2,852	34	37	26	8,408	34							
		4	Very much	45	31	2,726	32	58	40	8,570	34							
		Total		144	100	8,412	100	144	100	25,077	100							
f. Working effectively with others	pgothers	1	Very little	6	4	407	5	10	7	1,498	6	3.0	3.0	.02	3.0	.04	3.0	.07
		2	Some	26	18	1,783	21	34	24	5,593	22							
		3	Quite a bit	66	46	3,362	40	42	30	9,625	38							
		4	Very much	45	31	2,860	34	56	39	8,354	33							
		Total		143	100	8,412	100	142	100	25,070	100							
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	31	22	1,393	17	28	19	4,015	16	2.5	2.6	-.09	2.6	-.13	2.6	-.13
		2	Some	39	27	2,622	31	38	26	7,509	30							
		3	Quite a bit	48	33	2,618	31	40	28	7,867	31							
		4	Very much	26	18	1,778	21	38	26	5,679	23							
		Total		144	100	8,411	100	144	100	25,070	100							
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	38	27	1,371	16	38	26	4,507	18	2.3	2.6 ***	-0.31	2.4	-.09	2.5 **	-.26
		2	Some	48	34	2,695	32	45	31	8,214	33							
		3	Quite a bit	39	27	2,565	31	33	23	7,246	29							
		4	Very much	18	13	1,773	21	28	19	5,095	20							
		Total		143	100	8,404	100	144	100	25,062	100							
i. Solving complex real-world problems	pgprobsolve	1	Very little	12	8	674	8	14	10	2,316	9	3.0	2.9	.05	2.9	.11	2.9	.10
		2	Some	29	20	2,167	26	38	27	6,524	26							
		3	Quite a bit	56	39	2,848	34	46	32	8,510	34							
		4	Very much	47	33	2,728	32	45	31	7,731	31							
		Total		144	100	8,417	100	143	100	25,081	100							
j. Being an informed and active citizen	pgcitizen	1	Very little	43	30	1,850	22	33	23	5,571	22	2.2	2.3 *	-.20	2.3	-.15	2.4 *	-.21
		2	Some	49	34	3,101	37	57	40	8,994	36							
		3	Quite a bit	39	27	2,158	26	30	21	6,432	26							
		4	Very much	13	9	1,301	15	23	16	4,084	16							
		Total		144	100	8,410	100	143	100	25,081	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Engineering

Tennessee Technological University

Seniors^a in Engineering

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Your seniors compared with				
Item wording or description	Variable name ^l	Values ^m	Response options	Count		Count		Count		Count		Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
					%		%		%		%							
18. How would you evaluate your entire educational experience at this institution?																		
	evalexp	1	Poor	4	3	329	4	9	6	995	4	3.0	3.1	-.05	3.0	.02	3.1	-.08
		2	Fair	26	18	1,303	15	28	19	3,816	15							
		3	Good	74	51	4,115	49	57	39	11,721	47							
		4	Excellent	41	28	2,693	32	51	35	8,637	34							
			Total	145	100	8,440	100	145	100	25,169	100							
19. If you could start over again, would you go to the same institution you are now attending?																		
	sameinst	1	Definitely no	10	7	483	6	12	8	1,442	6	3.0	3.1	-.09	3.0	.02	3.1	-.09
		2	Probably no	23	16	1,143	14	30	21	3,646	14							
		3	Probably yes	63	44	3,748	44	47	32	10,711	43							
		4	Definitely yes	48	33	3,080	36	56	39	9,398	37							
			Total	144	100	8,454	100	145	100	25,197	100							

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

Engineering

Item wording or description	Variable name	Response options	First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
21a. How many majors do you plan to complete? (Do not count minors.)	MAJnum	One	139	93	5,280	86	228	90	17,692	85	132	91	7,452	88	131	90	21,705	86
		More than one	11	7	868	14	26	10	3,121	15	13	9	1,002	12	15	10	3,478	14
		Total	150	100	6,148	100	254	100	20,813	100	145	100	8,454	100	146	100	25,183	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 <i>(Recoded from MAJfirst.)</i>	Arts & Humanities	0	0	374	6	11	4	799	4	1	1	363	4	5	3	706	3
		Biological Sci., Agriculture, & Natural Resources	2	1	25	0	1	0	75	0	1	1	29	0	0	0	74	0
		Physical Sci., Mathematics, & Computer Science	35	23	1,285	21	70	27	5,356	26	26	18	1,220	14	47	32	4,924	19
		Social Sciences	1	1	26	0	1	0	72	0	0	0	27	0	1	1	74	0
		Business	1	1	48	1	1	0	198	1	0	0	52	1	1	1	300	1
		Communications, Media, & Public Relations	0	0	19	0	1	0	94	0	0	0	32	0	1	1	110	0
		Education	0	0	2	0	0	0	12	0	0	0	4	0	1	1	16	0
		Engineering	111	73	4,069	66	159	62	11,878	57	116	80	6,226	73	71	49	15,232	60
		Health Professions	0	0	2	0	0	0	21	0	0	0	9	0	1	1	36	0
		Social Service Professions	1	1	15	0	0	0	67	0	0	0	26	0	0	0	136	1
		All Other	1	1	327	5	12	5	2,378	11	1	1	519	6	18	12	3,740	15
		Undecided, Undeclared	0	0	1	0	0	0	2	0	0	0	0	0	0	0	5	0
		Total	152	100	6,193	100	256	100	20,952	100	145	100	8,507	100	146	100	25,353	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 <i>(Recoded from MAJsecond.)</i>	Arts & Humanities	0	0	96	11	1	4	325	10	0	0	108	11	2	13	315	9
		Biological Sci., Agriculture, & Natural Resources	0	0	19	2	0	0	78	3	1	8	32	3	1	7	82	2
		Physical Sci., Mathematics, & Computer Science	1	9	265	31	6	23	934	30	4	31	258	26	4	27	895	26
		Social Sciences	0	0	39	5	1	4	115	4	0	0	32	3	0	0	125	4
		Business	1	9	75	9	4	15	251	8	0	0	70	7	2	13	236	7
		Communications, Media, & Public Relations	0	0	5	1	0	0	30	1	0	0	3	0	0	0	27	1
		Education	1	9	2	0	0	0	17	1	1	8	4	0	0	0	15	0
		Engineering	4	36	252	29	8	31	768	25	6	46	342	34	2	13	919	27
		Health Professions	0	0	10	1	2	8	39	1	0	0	13	1	0	0	35	1
		Social Service Professions	0	0	9	1	1	4	43	1	0	0	11	1	0	0	75	2
		All Other	2	18	58	7	1	4	382	12	1	8	92	9	4	27	630	18
		Undecided, Undeclared	2	18	34	4	2	8	125	4	0	0	32	3	0	0	101	3
		Total	11	100	864	100	26	100	3,107	100	13	100	997	100	15	100	3,455	100
22. What is your class level?	class	Freshman/First-year	128	86	5,629	92	228	89	18,497	90	0	0	26	0	0	0	91	0
		Sophomore	21	14	389	6	21	8	1,716	8	0	0	188	2	1	1	418	2
		Junior	0	0	58	1	2	1	274	1	13	9	1,322	16	14	10	3,201	13
		Senior	0	0	8	0	1	0	56	0	121	84	6,729	80	125	87	20,837	83
		Unclassified	0	0	10	0	3	1	122	1	10	7	147	2	3	2	511	2
		Total	149	100	6,094	100	255	100	20,665	100	144	100	8,412	100	143	100	25,058	100

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

Engineering

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
23. Thinking about this current academic term, are you a full-time student?	fulltime	No	2	1	112	2	5	2	675	3	15	10	1,374	16	34	24	4,416	18
		Yes	147	99	5,959	98	248	98	19,919	97	129	90	7,009	84	109	76	20,550	82
		Total	149	100	6,071	100	253	100	20,594	100	144	100	8,383	100	143	100	24,966	100
24a. How many courses are you taking for credit this current academic term?	coursenum	0	0	0	11	0	2	1	76	0	3	2	155	2	4	3	551	2
		1	0	0	18	0	1	0	152	1	2	1	191	2	11	8	802	3
		2	0	0	34	1	3	1	309	1	5	3	437	5	10	7	1,798	7
		3	2	1	190	3	6	2	798	4	11	8	877	10	15	10	2,662	11
		4	49	33	1,925	32	35	14	5,626	27	36	25	2,727	32	40	28	7,319	29
		5	75	50	2,522	41	104	41	8,166	39	53	37	2,471	29	34	24	6,947	28
		6	20	13	940	15	63	25	3,432	17	20	14	941	11	20	14	2,904	12
		7 or more	3	2	469	8	40	16	2,131	10	14	10	617	7	9	6	2,102	8
		Total	149	100	6,109	100	254	100	20,690	100	144	100	8,416	100	143	100	25,085	100
b. Of these, how many are entirely online ?	onlinenum	0	125	84	5,264	87	205	81	17,182	83	126	88	6,665	80	106	75	18,194	73
		1	19	13	601	10	34	13	2,064	10	15	10	1,213	14	27	19	3,664	15
		2	2	1	139	2	10	4	567	3	1	1	272	3	4	3	1,489	6
		3	2	1	43	1	1	0	229	1	1	1	126	2	2	1	687	3
		4	0	0	16	0	1	0	285	1	1	1	52	1	1	1	483	2
		5	0	0	9	0	0	0	76	0	0	0	18	0	1	1	141	1
		6	0	0	5	0	0	0	73	0	0	0	15	0	1	1	133	1
		7 or more	0	0	1	0	1	0	111	1	0	0	16	0	0	0	197	1
		Total	148	100	6,078	100	252	100	20,587	100	144	100	8,377	100	142	100	24,988	100
Collapsed recode of courses taken online (Based on responses to coursenum and onlinenum.)	onlinecscol	No courses taken online	125	84	5,264	87	205	81	17,182	83	126	88	6,665	80	106	75	18,194	73
		Some courses taken online	23	16	759	12	45	18	2,521	12	18	13	1,511	18	27	19	4,602	18
		All courses taken online	0	0	55	1	2	1	884	4	0	0	201	2	9	6	2,192	9
		Total	148	100	6,078	100	252	100	20,587	100	144	100	8,377	100	142	100	24,988	100
25. What have most of your grades been up to now at this institution?	grades	C- or lower	2	1	77	1	6	2	355	2	1	1	34	0	2	1	112	0
		C	7	5	138	2	4	2	508	2	6	4	203	2	7	5	596	2
		C+	8	5	190	3	6	2	766	4	10	7	364	4	6	4	1,152	5
		B-	9	6	290	5	9	4	1,231	6	15	10	644	8	12	8	1,897	8
		B	29	19	963	16	33	13	3,545	17	36	25	1,702	20	31	22	4,873	19
		B+	26	17	1,052	17	39	15	3,735	18	18	13	1,553	19	21	15	4,524	18
		A-	24	16	1,353	22	64	25	4,264	21	16	11	1,575	19	22	15	4,636	19
		A	44	30	2,034	33	92	36	6,237	30	42	29	2,315	28	41	29	7,225	29
		Total	149	100	6,097	100	253	100	20,641	100	144	100	8,390	100	142	100	25,015	100
26. Did you begin college at this institution or elsewhere?	begincol	Started here	132	90	5,742	94	233	92	18,888	92	94	65	5,368	64	79	56	14,728	59
		Started elsewhere	15	10	338	6	20	8	1,716	8	50	35	3,014	36	62	44	10,266	41
		Total	147	100	6,080	100	253	100	20,604	100	144	100	8,382	100	141	100	24,994	100

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

Engineering

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
27. 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	4	3	107	2	10	4	670	3	5	3	390	5	14	10	1,749	7
	attend_com	Community or junior college	21	14	432	7	19	8	1,804	9	61	43	3,023	36	49	35	9,428	38
	attend_col	4-year college or university other than this one	3	2	381	6	22	9	1,652	8	24	17	1,861	22	41	29	6,257	25
	attend_none	None	117	80	5,042	83	199	79	16,266	79	67	47	4,053	49	58	41	11,065	44
	attend_other	Other	3	2	170	3	6	2	719	4	3	2	251	3	2	1	1,072	4
28. What is the highest level of education you ever expect to complete?	edaspire	Some college but less than a bachelor's degree	9	6	274	5	15	6	1,215	6	5	3	432	5	10	7	1,623	6
		Bachelor's degree (B.A., B.S., etc.)	68	46	2,199	36	97	38	8,462	41	63	44	3,274	39	63	45	10,324	41
		Master's degree (M.A., M.S., etc.)	58	39	2,658	44	101	40	8,278	40	53	37	3,457	41	55	39	9,978	40
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	14	9	949	16	39	15	2,612	13	23	16	1,220	15	13	9	3,075	12
		Total	149	100	6,080	100	252	100	20,567	100	144	100	8,383	100	141	100	25,000	100
29. What is the highest level of education completed by either of your parents (or those who raised you)?	parented	Did not finish high school	7	5	269	4	13	5	988	5	4	3	389	5	7	5	1,201	5
		High school diploma or G.E.D.	20	13	729	12	28	11	2,947	14	22	15	1,013	12	26	18	3,689	15
		Attended college, but did not complete degree	18	12	384	6	21	8	1,724	8	12	8	548	7	9	6	2,092	8
		Associate's degree (A.A., A.S., etc.)	17	11	302	5	19	8	1,532	7	14	10	566	7	17	12	2,189	9
		Bachelor's degree (B.A., B.S., etc.)	45	30	1,994	33	93	37	6,670	32	59	42	2,872	34	42	30	8,190	33
		Master's degree (M.A., M.S., etc.)	35	23	1,694	28	61	24	4,918	24	24	17	2,023	24	32	23	5,392	22
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	7	5	701	12	18	7	1,757	9	7	5	961	11	8	6	2,180	9
		Total	149	100	6,073	100	253	100	20,536	100	142	100	8,372	100	141	100	24,933	100
First-generation status (Neither parent holds a bachelor's degree.)	firstgen (Recoded from parented.)	Not first-generation	87	58	4,389	72	172	68	13,345	65	90	63	5,856	70	82	58	15,762	63
		First-generation	62	42	1,684	28	81	32	7,191	35	52	37	2,516	30	59	42	9,171	37
		Total	149	100	6,073	100	253	100	20,536	100	142	100	8,372	100	141	100	24,933	100
30. What is your gender identity?	genderid	Man	100	67	3,799	63	163	65	13,614	66	94	65	5,403	64	87	62	16,912	68
		Woman	43	29	2,145	35	80	32	6,428	31	45	31	2,708	32	46	33	7,155	29
		Another gender identity	2	1	51	1	3	1	220	1	1	1	98	1	3	2	325	1
		I prefer not to respond	4	3	83	1	6	2	308	1	4	3	169	2	5	4	566	2
		Total	149	100	6,078	100	252	100	20,570	100	144	100	8,378	100	141	100	24,958	100
31. Enter your year of birth (e.g., 1994):	agecat (Recoded from the information entered in birthyear.)	19 or younger	135	91	5,719	95	234	94	18,097	88	1	1	77	1	1	1	174	1
		20-23	13	9	266	4	5	2	1,361	7	108	76	6,110	73	74	53	15,921	64
		24-29	1	1	38	1	5	2	393	2	23	16	1,373	16	28	20	4,727	19
		30-39	0	0	14	0	3	1	341	2	5	3	566	7	27	19	2,513	10
		40-55	0	0	4	0	2	1	225	1	5	3	176	2	10	7	1,238	5
		Over 55	0	0	5	0	0	0	35	0	1	1	20	0	0	0	145	1
		Total	149	100	6,046	100	249	100	20,452	100	143	100	8,322	100	140	100	24,718	100

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University

Engineering

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
32a. Are you an international student? [If answered "yes"] Country of citizenship, collapsed into regions by NSSE. Responses to country are in the data file.	internat	No	146	99	5,534	91	236	94	19,003	93	139	97	7,763	93	127	90	23,263	93
		Yes	2	1	525	9	16	6	1,507	7	5	3	593	7	14	10	1,627	7
		Total	148	100	6,059	100	252	100	20,510	100	144	100	8,356	100	141	100	24,890	100
	countrycol (Recoded from country.)	Africa Sub-Saharan	1	50	33	7	5	36	146	11	0	0	37	7	1	8	115	8
		Asia	1	50	247	53	4	29	718	53	2	40	289	54	5	42	650	45
		Canada	0	0	10	2	0	0	25	2	0	0	10	2	0	0	41	3
		Europe	0	0	47	10	2	14	119	9	0	0	24	4	0	0	100	7
		Latin America and Caribbean	0	0	65	14	0	0	177	13	1	20	86	16	1	8	200	14
		Middle East and North Africa	0	0	59	13	3	21	159	12	1	20	88	16	5	42	326	23
		Oceania	0	0	5	1	0	0	7	1	1	20	3	1	0	0	3	0
Unknown region/uncoded		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	100	466	100	14	100	1,351	100	5	100	537	100	12	100	1,435	100		
33. How would you describe yourself? (Select all that apply.) Racial or ethnic identification	re_amind to re_pnr recoded where each student is represented only once)	American Indian or Alaska Native	2	1	120	2	8	3	407	2	0	0	141	2	3	2	427	2
		Asian	5	3	1,184	20	14	6	2,980	15	5	3	1,367	16	11	8	3,095	12
		Black or African American	8	5	396	7	46	18	1,968	10	3	2	464	6	20	14	1,746	7
		Hispanic or Latina/o	6	4	833	14	16	6	3,015	15	6	4	993	12	5	4	2,944	12
		Middle Eastern or N. African (2019)	1	1	87	3	3	1	211	2	2	1	152	3	3	3	356	2
		Native Hawaiian/Other Pac. Islander	2	1	72	1	2	1	232	1	0	0	69	1	0	0	249	1
		White	129	87	3,802	63	169	67	12,999	64	127	88	5,441	65	93	66	16,617	67
		Another race or ethnicity (2019)	2	1	29	1	2	1	166	1	1	1	83	2	1	1	243	2
		Other (2018)	0	0	75	3	0	0	257	3	0	0	66	2	2	6	318	3
		I prefer not to respond	5	3	172	3	12	5	635	3	5	3	342	4	7	5	1,154	5
	re_all19	American Indian or Alaska Native	0	0	23	0	2	1	90	0	0	0	23	0	0	0	84	0
		Asian	3	2	981	16	9	4	2,362	12	4	3	1,141	14	11	8	2,495	10
		Black or African American	6	4	297	5	42	17	1,539	8	3	2	356	4	19	13	1,393	6
		Hispanic or Latina/o	4	3	512	9	10	4	2,030	10	3	2	703	8	4	3	2,082	8
		Middle Eastern or N. African (2019)	0	0	60	1	3	1	137	1	2	1	105	1	3	2	238	1
		Native Hawaiian/Other Pac. Islander	0	0	14	0	0	0	50	0	0	0	17	0	0	0	57	0
		White	121	81	3,243	54	154	61	11,271	55	122	85	4,867	58	90	64	15,014	61
		Another race or ethnicity (2019)	0	0	12	0	1	0	74	0	0	0	42	1	1	1	137	1
		Other (2018)	0	0	46	1	0	0	143	1	0	0	39	0	2	1	212	1
Total	149	100	6,016	100	251	100	20,425	100	144	100	8,320	100	141	100	24,795	100		
34. Are you a member of a social fraternity or sorority?	greek	No	143	96	5,350	88	237	94	18,913	92	136	94	7,140	85	121	86	22,097	89
		Yes	6	4	704	12	16	6	1,602	8	8	6	1,220	15	19	14	2,824	11
		Total	149	100	6,054	100	253	100	20,515	100	144	100	8,360	100	140	100	24,921	100

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Engineering

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			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
35. Which of the following best describes where you are living while attending college?	living18	Campus housing (other than a fraternity or sorority house)	113	76	4,444	74	153	61	13,470	66	17	12	962	12	16	11	3,676	15
		Fraternity or sorority house	0	0	82	1	0	0	177	1	0	0	177	2	2	1	444	2
		House, apartment, or other residence within walking distance to campus	11	7	319	5	11	4	1,339	7	62	43	2,906	35	24	17	6,779	27
		House, apartment, or other residence farther than walk. dist. to campus	24	16	1,172	19	86	34	4,777	23	64	44	4,175	50	95	67	12,308	50
		Not applicable: No campus, entirely online program, etc.	0	0	19	0	2	1	635	3	0	0	87	1	3	2	1,528	6
		Not applicable: Homeless or in transition	0	0	9	0	0	0	43	0	1	1	28	0	1	1	95	0
		Total	148	100	6,045	100	252	100	20,441	100	144	100	8,335	100	141	100	24,830	100
36. Are you a student-athlete on a team sponsored by your institution's athletics department?	athlete	No	145	97	5,801	96	243	96	19,018	93	140	98	8,137	98	138	99	23,815	96
		Yes	4	3	254	4	10	4	1,469	7	3	2	201	2	1	1	1,036	4
		Total	149	100	6,055	100	253	100	20,487	100	143	100	8,338	100	139	100	24,851	100
37. Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?	veteran	No	147	99	5,943	98	249	99	19,920	97	137	95	7,950	95	132	94	22,868	92
		Yes	2	1	97	2	2	1	533	3	7	5	389	5	9	6	1,976	8
		Total	149	100	6,040	100	251	100	20,453	100	144	100	8,339	100	141	100	24,844	100
38a. Have you been diagnosed with any disability or impairment?	disability	No	125	84	5,290	87	209	83	17,443	85	126	88	7,175	86	111	78	20,985	84
		Yes	18	12	582	10	29	11	2,267	11	12	8	888	11	20	14	2,945	12
		I prefer not to respond	5	3	183	3	15	6	780	4	6	4	285	3	11	8	968	4
		Total	148	100	6,055	100	253	100	20,490	100	144	100	8,348	100	142	100	24,898	100
b. [If answered "yes"] Which of the following has been diagnosed? (Select all that apply.)	dis_sense dis_mobility dis_learning dis_mental dis_other	A sensory impairment (vision or hearing)	5	28	115	20	5	17	419	19	0	0	112	13	2	10	431	15
		A mobility impairment	2	11	32	6	3	10	150	7	1	8	62	7	2	10	299	10
		A learning disability (e.g., ADHD, dyslexia)	6	33	250	43	11	38	1,083	48	7	58	417	47	11	55	1,310	45
		A mental health disorder	6	33	222	38	7	24	825	37	6	50	381	43	7	35	1,171	40
		A disability or impairment not listed above	7	39	109	19	8	28	408	18	1	8	147	17	4	20	591	20
		Disability or impairment	disability_all (Items dis_sense to dis_other recoded where each student is represented only once.)	3	2	76	1	5	2	267	1	0	0	66	1	1	1	231
	A mobility impairment	0	0	13	0	2	1	69	0	0	0	30	0	1	1	124	0	
	A learning disability	3	2	175	3	7	3	701	3	4	3	280	3	8	6	858	3	
	A mental health disorder	3	2	128	2	4	2	459	2	4	3	229	3	5	4	659	3	
	A disability or impairment not listed	4	3	70	1	6	2	245	1	1	1	90	1	2	1	360	1	
	More than one disability or impairment	5	3	117	2	5	2	516	3	3	2	190	2	3	2	695	3	
	No disability or impairment	125	84	5,290	87	209	83	17,443	85	126	88	7,175	86	111	78	20,985	84	
	Prefer not to respond	5	3	183	3	15	6	780	4	6	4	285	3	11	8	968	4	
	Total	148	100	6,052	100	253	100	20,480	100	144	100	8,345	100	142	100	24,880	100	

NSSE 2019 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Engineering

Tennessee Technological University





Engineering

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019		Tennessee Tech		Carnegie Class		Quality Assurance		NSSE 2018 & 2019	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
39. Which of the following best describes your sexual orientation?	sexorient17	Straight (heterosexual)	132	88	5,110	84	208	82	17,349	85	129	90	7,117	85	117	82	21,161	85
		Bisexual	5	3	339	6	14	6	1,131	6	3	2	377	5	4	3	1,024	4
		Gay	1	1	118	2	7	3	308	2	2	1	160	2	1	1	439	2
		Lesbian	3	2	50	1	1	0	168	1	1	1	57	1	4	3	180	1
		Queer	0	0	31	1	1	0	102	0	0	0	50	1	0	0	132	1
		Questioning or unsure	1	1	99	2	0	0	301	1	0	0	69	1	3	2	194	1
		Another sexual orientation	2	1	82	1	4	2	282	1	4	3	118	1	5	4	383	2
		I prefer not to respond	6	4	227	4	18	7	875	4	5	3	403	5	8	6	1,398	6
Total			150	100	6,056	100	253	100	20,516	100	144	100	8,351	100	142	100	24,911	100
Institution-reported information (Variables provided by your institution in your NSSE population file.)																		
Institution-reported: Sex	IRsex19	Female	44	29	2,225	36	87	34	6,704	32	45	31	2,810	33	48	33	7,453	29
		Male	108	71	3,968	64	169	66	14,236	68	100	69	5,698	67	98	67	17,888	71
		Another	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		Unknown	0	0	0	0	0	0	16	0	0	0	0	0	0	0	15	0
		Total			152	100	6,193	100	256	100	20,957	100	145	100	8,508	100	146	100
Institution-reported: Race or ethnicity	IRrace	American Indian or Alaska Native	1	1	23	0	0	0	72	0	0	0	33	0	0	0	102	0
		Asian	3	2	634	11	8	3	1,557	8	5	3	793	10	6	4	1,761	8
		Black or African American	6	4	243	4	42	16	1,324	7	3	2	296	4	21	14	1,204	5
		Hispanic or Latino	0	0	727	13	16	6	2,503	13	0	0	898	12	4	3	2,560	11
		Native Hawaiian/Other Pac. Islander	0	0	5	0	0	0	95	1	0	0	10	0	0	0	82	0
		White	129	85	3,059	55	161	63	10,507	56	132	91	4,559	60	95	65	14,160	62
		Other	0	0	0	0	0	0	6	0	0	0	0	0	0	0	11	0
		Foreign or nonresident	0	0	435	8	15	6	1,269	7	0	0	538	7	13	9	1,407	6
		Two or more races/ethnicities	12	8	259	5	5	2	759	4	2	1	289	4	2	1	776	3
Total			152	100	5,514	100	256	100	18,749	100	145	100	7,587	100	146	100	22,906	100
Institution-reported: Class level	IRclass	Freshman/First-Year	152	100	6,193	100	256	100	20,958	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	145	100	8,508	100	146	100	25,357	100
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total			152	100	6,193	100	256	100	20,958	100	145	100	8,508	100	146	100
Institution-reported: First-time first-year (FTFY) student	IRftfy	Not first-time first-year	13	9	437	7	23	9	2,239	11	145	100	8,508	100	146	100	25,079	99
		First-time first-year	139	91	5,756	93	232	91	18,718	89	0	0	0	0	0	0	278	1
		Total			152	100	6,193	100	255	100	20,957	100	145	100	8,508	100	146	100
Institution-reported: Enrollment status	IREnrollment	Not full-time	2	1	135	2	7	3	726	3	18	12	1,126	13	33	23	3,887	15
		Full-time	150	99	6,058	98	249	97	20,232	97	127	88	7,382	87	113	77	21,470	85
		Total			152	100	6,193	100	256	100	20,958	100	145	100	8,508	100	146	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.M., & Gonyea, R.M. (2018). Contextualizing effect sizes in the National Survey of Student Engagement: An empirical analysis. *Research & Practice in Assessment*, 13 (Summer/Fall), pp. 22-38.