
Tennessee Technological University

NSSE 2016 Major Field Report, Part II

Comparisons to Other Institutions

Natural-Math Science

*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 'Natural-Math Science' includes the following majors: Biochemistry or biophysics; Biology (general); Biomedical science; Botany; Cell and molecular biology; Chemistry; Earth science (including geology); Marine science; Mathematics; Microbiology or bacteriology; Natural science; Other biological sciences; Physical sciences (general); Physics; Zoology.

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: Natural-Math Science.

NSSE results included in MFR, Part II

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

Related-Major Groups

Self-reported majors (first major given if two were reported) were identified from the survey. Your institution had the option to customize how these were grouped, using up to ten related-major groups. Institutions choosing not to customize their related-major groups 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.

Class

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

Technical Requirements

Related-major groups with fewer than 20 respondents in a given class are not reported (columns are blank). Comparison groups must also contain at least 20 respondents in the major category, or they remain blank. Although 20 is a minimum requirement, 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, the Major Field Report results are unweighted.

Report Sections

Engagement Indicators (pp. 3-7)	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 (p. 8)	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 (pp. 9-44)	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 (pp. 45-51)	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.

Theme	Engagement Indicator	First-Year Students in Natural-Math Science			Seniors in Natural-Math Science		
		Your first-year students compared with Carnegie Class	Your first-year students compared with THEC Peer Group	Your first-year students compared with NSSE 2015 & 2016	Your seniors compared with Carnegie Class	Your seniors compared with THEC Peer Group	Your seniors compared with NSSE 2015 & 2016
Academic Challenge	Higher-Order Learning	--	--	▼	▼	--	▽
	Reflective & Integrative Learning	--	--	--	--	--	▽
	Learning Strategies	--	--	--	--	▼	--
	Quantitative Reasoning	--	--	--	--	--	--
Learning with Peers	Collaborative Learning	--	--	--	--	--	--
	Discussions with Diverse Others	--	--	--	--	--	--
Experiences with Faculty	Student-Faculty Interaction	--	--	--	--	--	--
	Effective Teaching Practices	--	--	--	▽	--	▼
Campus Environment	Quality of Interactions	--	--	--	--	--	--
	Supportive Environment	--	--	--	--	--	▽

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Engagement Indicators: Natural-Math Science

Tennessee Technological University

First-year students^a in Natural-Math Science

	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 = 30)	35.5	14.2	2.59	10	30	35	45	60				
Carnegie Class	39.9	13.9	.31	20	30	40	50	60	2,037	-4.4		-.319
THEC Peer Group	38.5	14.7	1.26	10	30	40	50	60	164	-3.0		-.203
NSSE 2015 & 2016	40.6	13.4	.10	20	30	40	50	60	19,615	-5.1	*	-.378
Reflective & Integrative Learning												
Tennessee Tech (N = 30)	34.7	13.4	2.44	14	26	29	43	60				
Carnegie Class	35.2	12.4	.27	17	26	34	43	60	2,093	-.6		-.044
THEC Peer Group	34.9	12.9	1.09	14	26	34	43	60	168	-.3		-.022
NSSE 2015 & 2016	35.5	12.1	.09	17	26	34	43	57	20,033	-.8		-.065
Learning Strategies												
Tennessee Tech (N = 30)	38.9	12.8	2.33	13	33	40	47	60				
Carnegie Class	40.2	14.0	.31	20	27	40	53	60	2,062	-1.3		-.094
THEC Peer Group	43.2	13.6	1.16	20	33	47	53	60	166	-4.3		-.323
NSSE 2015 & 2016	40.5	13.7	.10	20	33	40	53	60	19,787	-1.6		-.118
Quantitative Reasoning												
Tennessee Tech (N = 30)	29.1	15.5	2.83	0	20	27	40	60				
Carnegie Class	30.0	15.6	.34	7	20	27	40	60	2,080	-.9		-.057
THEC Peer Group	28.3	17.2	1.47	0	13	27	40	60	166	.8		.047
NSSE 2015 & 2016	31.0	15.6	.11	7	20	33	40	60	19,931	-1.9		-.120
Learning with Peers												
Collaborative Learning												
Tennessee Tech (N = 30)	32.5	14.1	2.57	15	20	30	40	60				
Carnegie Class	35.2	14.2	.31	15	25	35	45	60	2,066	-2.7		-.188
THEC Peer Group	37.2	15.1	1.28	10	25	35	50	60	167	-4.7		-.315
NSSE 2015 & 2016	35.8	13.9	.10	15	25	35	45	60	19,778	-3.3		-.238
Discussions with Diverse Others												
Tennessee Tech (N = 29)	39.0	15.7	2.91	15	25	40	55	60				
Carnegie Class	41.5	15.7	.35	15	30	40	60	60	2,068	-2.5		-.160
THEC Peer Group	41.7	15.3	1.31	15	30	40	55	60	165	-2.7		-.178
NSSE 2015 & 2016	41.5	15.2	.11	15	30	40	55	60	19,887	-2.6		-.168

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Engagement Indicators: Natural-Math Science

Tennessee Technological University

First-year students^a in Natural-Math Science

	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 = 30)	24.2	15.9	2.91	5	10	20	35	55				
Carnegie Class	21.5	15.2	.34	0	10	20	30	55	2,061	2.7		.178
THEC Peer Group	23.5	16.1	1.38	5	10	20	33	60	164	.7		.042
NSSE 2015 & 2016	21.9	14.6	.10	0	10	20	30	50	19,800	2.3		.154
Effective Teaching Practices												
Tennessee Tech (N = 30)	41.3	10.9	2.00	24	32	40	48	60				
Carnegie Class	39.4	13.1	.29	20	32	40	48	60	2,098	1.9		.145
THEC Peer Group	39.1	13.7	1.16	20	28	40	52	60	167	2.3		.171
NSSE 2015 & 2016	40.2	12.8	.09	20	32	40	52	60	20,073	1.2		.090
Campus Environment												
Quality of Interactions												
Tennessee Tech (N = 29)	40.5	10.6	1.97	22	34	42	48	56				
Carnegie Class	40.7	12.5	.28	18	33	42	50	60	2,001	-.1		-.012
THEC Peer Group	39.7	12.4	1.06	20	32	40	48	60	164	.9		.072
NSSE 2015 & 2016	42.2	12.0	.09	20	36	44	50	60	19,355	-1.6		-.136
Supportive Environment												
Tennessee Tech (N = 30)	34.0	11.8	2.15	18	28	33	43	55				
Carnegie Class	36.8	13.7	.30	15	28	38	48	60	2,082	-2.8		-.207
THEC Peer Group	36.6	13.8	1.16	14	28	37	48	60	168	-2.6		-.194
NSSE 2015 & 2016	38.2	13.4	.10	15	30	40	48	60	19,918	-4.2		-.315

Seniors^a in Natural-Math Science

	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 = 55)	36.5	15.4	2.07	10	25	35	50	60				
Carnegie Class	40.8	14.0	.32	15	30	40	55	60	1,999	-4.4	*	-.310
THEC Peer Group	40.4	13.9	1.10	15	30	40	50	60	214	-4.0		-.278
NSSE 2015 & 2016	40.3	14.0	.10	15	30	40	50	60	21,190	-3.8	*	-.272
Reflective & Integrative Learning												
Tennessee Tech (N = 55)	32.8	11.9	1.61	14	26	31	40	57				
Carnegie Class	36.0	12.5	.28	17	26	37	46	60	2,052	-3.3		-.261
THEC Peer Group	35.4	12.0	.93	14	29	34	43	54	218	-2.6		-.220
NSSE 2015 & 2016	36.2	12.6	.09	17	29	37	46	60	21,583	-3.5	*	-.275
Learning Strategies												
Tennessee Tech (N = 54)	38.8	14.9	2.03	13	27	40	53	60				
Carnegie Class	41.4	14.4	.32	20	33	40	53	60	2,028	-2.6		-.182
THEC Peer Group	43.5	14.1	1.12	13	33	47	53	60	211	-4.7	*	-.330
NSSE 2015 & 2016	40.5	14.3	.10	20	33	40	53	60	21,330	-1.8		-.122
Quantitative Reasoning												
Tennessee Tech (N = 55)	32.8	16.9	2.28	0	20	33	40	60				
Carnegie Class	35.2	16.1	.36	7	20	33	47	60	2,038	-2.4		-.148
THEC Peer Group	34.5	15.9	1.24	7	20	33	47	60	218	-1.7		-.105
NSSE 2015 & 2016	35.6	16.0	.11	7	20	33	47	60	21,537	-2.7		-.170
Learning with Peers												
Collaborative Learning												
Tennessee Tech (N = 52)	33.6	13.2	1.83	15	25	35	45	55				
Carnegie Class	36.9	14.0	.32	15	25	35	50	60	2,031	-3.3		-.238
THEC Peer Group	35.8	14.7	1.15	15	25	35	48	60	214	-2.2		-.154
NSSE 2015 & 2016	36.2	14.0	.10	15	25	35	45	60	21,324	-2.6		-.186
Discussions with Diverse Others												
Tennessee Tech (N = 55)	40.7	15.8	2.13	5	30	40	55	60				
Carnegie Class	42.0	15.9	.36	15	30	40	60	60	2,031	-1.3		-.081
THEC Peer Group	41.9	15.7	1.23	20	30	40	60	60	215	-1.1		-.072
NSSE 2015 & 2016	41.4	15.6	.11	15	30	40	60	60	21,437	-.7		-.045

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Engagement Indicators: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

	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 = 54)	27.0	16.1	2.19	0	15	25	40	60				
Carnegie Class	27.9	16.4	.37	5	15	25	40	60	2,019	-.9		-.053
THEC Peer Group	26.9	15.5	1.22	0	15	25	35	55	214	.2		.012
NSSE 2015 & 2016	27.8	16.3	.11	5	15	25	40	60	21,358	-.7		-.045
Effective Teaching Practices												
Tennessee Tech (N = 55)	36.7	13.5	1.82	16	28	36	44	60				
Carnegie Class	40.7	13.4	.30	20	32	40	52	60	2,050	-3.9	*	-.294
THEC Peer Group	39.0	13.9	1.08	20	28	40	48	60	218	-2.2		-.162
NSSE 2015 & 2016	40.7	13.1	.09	20	32	40	52	60	21,636	-3.9	*	-.302
Campus Environment												
Quality of Interactions												
Tennessee Tech (N = 55)	41.7	11.8	1.59	20	34	44	50	60				
Carnegie Class	41.7	11.9	.27	20	34	43	50	60	1,998	.0		-.002
THEC Peer Group	38.6	12.8	1.01	16	30	40	48	58	213	3.1		.248
NSSE 2015 & 2016	42.1	11.4	.08	20	36	44	50	60	21,032	-.4		-.033
Supportive Environment												
Tennessee Tech (N = 55)	30.1	13.1	1.76	13	20	30	38	58				
Carnegie Class	33.7	14.4	.32	10	23	33	43	60	2,045	-3.6		-.253
THEC Peer Group	32.1	14.5	1.14	10	20	30	43	60	217	-2.1		-.146
NSSE 2015 & 2016	33.9	13.8	.09	10	25	35	43	60	21,520	-3.8	*	-.278

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

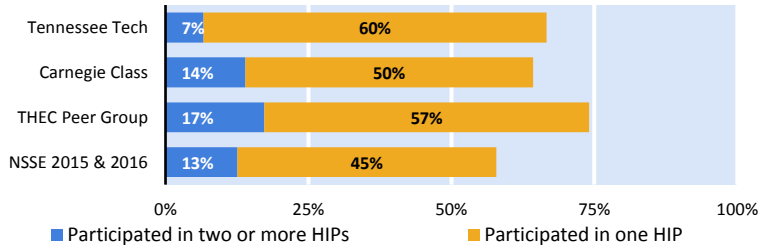
High-Impact Practices: Natural-Math Science

Tennessee Technological University

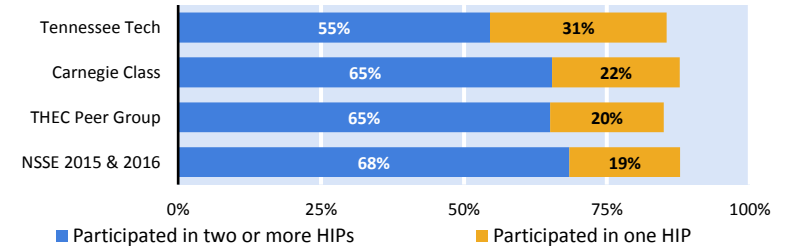
Overall HIP Participation^a

The figures below display the percentage^h of students who participated in High-Impact Practices. Both figures include participation in a learning community, service-learning, 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 of students who participated in at least two HIPs, and the full bar (both colors) represents the percentage who participated in at least one.

First-Year Students in Natural-Math Science



Seniors in Natural-Math Science



Statistical Comparisons^a

The table below compares the percentage^h of your students who participated in a High-Impact Practice, including the percentage who participated overall (at least one, two or more), with those at institutions in your comparison groups.

	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
	%		% ⁱ	Effect size ^j	% ⁱ	Effect size ^j	% ⁱ	Effect size ^j
<i>First-Year Students in Natural-Math Science</i>								
11c. Learning community	7		17	-.33	18	-.35	16	-.30
12. Service-learning	60		56	.09	64	-.09	49	.23
11e. Research with faculty	7		8	-.05	10	-.12	8	-.06
Participated in at least one	67		64	.05	74	-.16	58	.18
Participated in two or more	7		14	-.24	17	-.33	13	-.20
<i>Seniors in Natural-Math Science</i>								
11c. Learning community	18		27	-.22	22	-.10	26	-.18
12. Service-learning	44		57 *	-.27	51	-.15	53	-.18
11e. Research with faculty	44		48	-.08	45	-.02	50	-.14
11a. Internship or field exp.	40		48	-.15	45	-.10	51	-.23
11d. Study abroad	18		13	.15	11	.20	18	.00
11f. Culminating senior exp.	29		40	-.24	45 *	-.33	49 **	-.40
Participated in at least one	85		88	-.07	85	.01	88	-.07
Participated in two or more	55		65	-.22	65	-.21	68 *	-.29

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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	
				%	%	%	%	%	%										
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	3	10	58	3	5	4	609	3	2.6	2.9	-.27	3.0	-.38	2.9	-.29	
		2	Sometimes	13	43	730	35	41	29	6,738	34								
		3	Often	6	20	725	35	46	33	7,133	36								
		4	Very often	8	27	560	27	48	34	5,594	28								
			Total	30	100	2,073	100	140	100	20,074	100								
b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	15	50	333	16	30	22	3,287	16	1.9	2.5 ***	-.68	2.5 **	-.61	2.5 ***	-.66	
		2	Sometimes	9	30	694	34	39	28	6,956	35								
		3	Often	1	3	622	30	36	26	5,941	30								
		4	Very often	5	17	413	20	34	24	3,813	19								
			Total	30	100	2,062	100	139	100	19,997	100								
c. Come to class without completing readings or assignments	unpreparedr <i>(Reverse-coded version of unprepared created by NSSE.)</i>	1	Very often	3	10	98	5	8	6	913	5	3.1	3.1	.01	3.0	.05	3.1	-.01	
		2	Often	1	3	256	12	14	10	2,243	11								
		3	Sometimes	17	57	1,128	55	82	59	11,311	57								
		4	Never	9	30	575	28	34	25	5,537	28								
			Total	30	100	2,057	100	138	100	20,004	100								
d. Attended an art exhibit, play or other arts performance (dance, music, etc.)	attendart	1	Never	4	13	802	39	44	31	6,762	34	2.4	1.9 ***	.63	2.0 *	.46	2.0 **	.50	
		2	Sometimes	14	47	851	41	61	44	8,351	42								
		3	Often	7	23	275	13	24	17	3,362	17								
		4	Very often	5	17	136	7	11	8	1,522	8								
			Total	30	100	2,064	100	140	100	19,997	100								
e. Asked another student to help you understand course material	CLaskhelp	1	Never	2	7	135	7	11	8	1,121	6	2.7	2.7	-.08	2.9	-.22	2.8	-.12	
		2	Sometimes	13	43	754	36	37	27	6,994	35								
		3	Often	8	27	707	34	50	36	7,212	36								
		4	Very often	7	23	474	23	41	29	4,691	23								
			Total	30	100	2,070	100	139	100	20,018	100								
f. Explained course material to one or more students	CLexplain	1	Never	2	7	61	3	3	2	515	3	2.7	2.9	-.25	3.1 *	-.49	2.9	-.27	
		2	Sometimes	11	37	616	30	29	21	5,885	29								
		3	Often	11	37	843	41	60	43	8,243	41								
		4	Very often	6	20	538	26	48	34	5,372	27								
			Total	30	100	2,058	100	140	100	20,015	100								

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Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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	5	17	249	12	17	12	2,044	10	2.6	2.7	-.08	2.7	-.10	2.7	-.14	
		2	Sometimes	10	33	690	33	47	34	6,506	32								
		3	Often	7	23	618	30	37	26	6,196	31								
		4	Very often	8	27	514	25	39	28	5,299	26								
		Total		30	100	2,071	100	140	100	20,045	100								
h. Worked with other students on course projects or assignments	CLproject	1	Never	2	7	134	6	11	8	1,166	6	2.5	2.7	-.22	2.8	-.25	2.7	-.23	
		2	Sometimes	16	53	746	36	48	34	7,357	37								
		3	Often	6	20	734	35	44	31	7,150	36								
		4	Very often	6	20	454	22	37	26	4,355	22								
		Total		30	100	2,068	100	140	100	20,028	100								
i. Given a course presentation	present	1	Never	9	30	372	18	42	30	3,879	19	2.2	2.3	-.11	2.2	.04	2.2	-.03	
		2	Sometimes	10	33	959	46	57	41	9,667	48								
		3	Often	7	23	487	24	18	13	4,563	23								
		4	Very often	4	13	247	12	23	16	1,903	10								
		Total		30	100	2,065	100	140	100	20,012	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	5	17	143	7	8	6	1,334	7	2.5	2.6	-.16	2.7	-.22	2.6	-.17	
		2	Sometimes	12	40	825	40	57	41	7,877	39								
		3	Often	6	20	739	36	44	31	7,421	37								
		4	Very often	7	23	360	17	31	22	3,388	17								
		Total		30	100	2,067	100	140	100	20,020	100								
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	4	13	193	9	14	10	1,738	9	2.5	2.5	-.06	2.6	-.12	2.6	-.08	
		2	Sometimes	12	40	860	42	50	36	8,154	41								
		3	Often	9	30	691	34	53	38	7,014	35								
		4	Very often	5	17	317	15	23	16	3,057	15								
		Total		30	100	2,061	100	140	100	19,963	100								
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIDiverse	1	Never	4	13	234	11	24	17	2,012	10	2.5	2.6	-.06	2.5	-.04	2.6	-.06	
		2	Sometimes	12	40	793	38	43	31	8,024	40								
		3	Often	9	30	695	34	47	34	6,765	34								
		4	Very often	5	17	338	16	26	19	3,161	16								
		Total		30	100	2,060	100	140	100	19,962	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
												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	
d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	1	3	109	5	10	7	1,010	5	2.8	2.8	.07	2.7	.13	2.8	.08	
		2	Sometimes	9	30	674	33	47	34	6,538	33								
		3	Often	14	47	845	41	55	39	8,482	42								
		4	Very often	6	20	434	21	28	20	3,929	20								
		Total		30	100	2,062	100	140	100	19,959	100								
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	RIperspect	1	Never	1	3	80	4	8	6	665	3	2.7	2.9	-.19	2.9	-.17	2.9	-.21	
		2	Sometimes	12	40	589	29	37	27	5,628	28								
		3	Often	11	37	869	42	58	42	8,705	44								
		4	Very often	6	20	523	25	36	26	4,948	25								
		Total		30	100	2,061	100	139	100	19,946	100								
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	5	17	76	4	7	5	628	3	2.7	2.9	-.15	2.8	-.03	2.9	-.17	
		2	Sometimes	5	17	614	30	51	36	6,008	30								
		3	Often	13	43	891	43	50	36	8,641	43								
		4	Very often	7	23	477	23	32	23	4,679	23								
		Total		30	100	2,058	100	140	100	19,956	100								
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	0	0	40	2	4	3	258	1	3.3	3.1	.35	3.0	.39	3.1	.31	
		2	Sometimes	3	10	436	21	31	22	3,893	20								
		3	Often	14	47	937	46	62	44	9,315	47								
		4	Very often	13	43	643	31	43	31	6,452	32								
		Total		30	100	2,056	100	140	100	19,918	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	4	13	392	19	28	20	3,486	17	2.4	2.3	.10	2.3	.09	2.3	.09	
		2	Sometimes	16	53	926	45	59	42	9,219	46								
		3	Often	4	13	463	22	32	23	4,773	24								
		4	Very often	6	20	277	13	20	14	2,514	13								
		Total		30	100	2,058	100	139	100	19,992	100								
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	11	37	1,000	49	66	48	9,491	48	2.0	1.8	.24	1.9	.11	1.8	.25	
		2	Sometimes	11	37	615	30	36	26	6,355	32								
		3	Often	4	13	276	13	18	13	2,667	13								
		4	Very often	4	13	162	8	18	13	1,435	7								
		Total		30	100	2,053	100	138	100	19,948	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
												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	
c. Discussed course topics, ideas, or concepts with a faculty member outside of class	SFdiscuss	1	Never	9	30	647	32	32	23	5,539	28	2.2	2.0	.14	2.2	-.06	2.1	.08	
		2	Sometimes	10	33	844	41	62	45	8,718	44								
		3	Often	8	27	394	19	25	18	3,903	20								
		4	Very often	3	10	165	8	19	14	1,779	9								
		Total		30	100	2,050	100	138	100	19,939	100								
d. Discussed your academic performance with a faculty member	SFperform	1	Never	6	20	518	25	31	23	4,579	23	2.2	2.1	.09	2.3	-.07	2.2	.07	
		2	Sometimes	15	50	917	45	54	39	9,281	47								
		3	Often	5	17	411	20	31	23	4,146	21								
		4	Very often	4	13	207	10	21	15	1,926	10								
		Total		30	100	2,053	100	137	100	19,932	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	58	3	8	6	531	3	3.4	3.1 *	.40	3.1 *	.46	3.1 *	.44	
		2	Some	2	7	390	19	26	19	4,012	20								
		3	Quite a bit	13	43	881	43	56	40	8,734	44								
		4	Very much	15	50	735	36	49	35	6,715	34								
		Total		30	100	2,064	100	139	100	19,992	100								
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	0	0	65	3	10	7	472	2	3.2	3.1	.15	3.0	.27	3.2	.06	
		2	Some	5	17	415	20	28	20	3,391	17								
		3	Quite a bit	14	47	876	43	57	41	8,674	43								
		4	Very much	11	37	702	34	43	31	7,429	37								
		Total		30	100	2,058	100	138	100	19,966	100								
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	3	10	90	4	8	6	585	3	2.7	3.1 *	-.45	3.0	-.37	3.1 *	-.51	
		2	Some	11	37	413	20	29	21	4,091	21								
		3	Quite a bit	9	30	848	41	57	41	8,359	42								
		4	Very much	7	23	696	34	45	32	6,869	35								
		Total		30	100	2,047	100	139	100	19,904	100								
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	4	13	89	4	7	5	901	5	2.6	2.9 *	-.37	2.9	-.32	2.9	-.35	
		2	Some	8	27	517	25	39	28	5,129	26								
		3	Quite a bit	13	43	858	42	52	37	8,318	42								
		4	Very much	5	17	587	29	41	29	5,563	28								
		Total		30	100	2,051	100	139	100	19,911	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
												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. Forming a new idea or understanding from various pieces of information	HOform	1	Very little	5	17	97	5	8	6	872	4	2.6	2.9	-.39	2.9	-.32	2.9	-.41	
		2	Some	10	33	517	25	34	25	4,970	25								
		3	Quite a bit	7	23	870	42	61	45	8,435	42								
		4	Very much	8	27	568	28	34	25	5,621	28								
		Total		30	100	2,052	100	137	100	19,898	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	0	0	38	2	2	1	339	2	3.2	3.1	.12	3.3	-.08	3.1	.07	
		2	Some	6	20	390	19	19	14	3,403	17								
		3	Quite a bit	12	40	942	46	58	42	9,258	46								
		4	Very much	12	40	696	34	59	43	7,046	35								
		Total		30	100	2,066	100	138	100	20,046	100								
b. Taught course sessions in an organized way	ETorganize	1	Very little	0	0	70	3	11	8	486	2	3.4	3.1 *	.38	3.0 *	.43	3.1	.33	
		2	Some	1	3	402	19	25	18	3,599	18								
		3	Quite a bit	17	57	934	45	57	41	9,192	46								
		4	Very much	12	40	664	32	46	33	6,733	34								
		Total		30	100	2,070	100	139	100	20,010	100								
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	0	0	51	2	7	5	473	2	3.1	3.1	.04	3.0	.13	3.2	-.04	
		2	Some	7	23	421	20	33	24	3,502	18								
		3	Quite a bit	12	40	857	42	46	34	8,264	41								
		4	Very much	11	37	730	35	49	36	7,738	39								
		Total		30	100	2,059	100	135	100	19,977	100								
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	2	7	161	8	13	9	1,527	8	2.6	2.8	-.23	2.8	-.15	2.8	-.23	
		2	Some	13	43	573	28	41	29	5,705	29								
		3	Quite a bit	9	30	746	36	50	36	7,191	36								
		4	Very much	6	20	583	28	35	25	5,573	28								
		Total		30	100	2,063	100	139	100	19,996	100								
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	1	3	190	9	18	13	1,579	8	3.0	2.7	.28	2.7	.28	2.8	.24	
		2	Some	8	27	628	30	33	24	6,011	30								
		3	Quite a bit	11	37	765	37	53	39	7,478	37								
		4	Very much	10	33	477	23	33	24	4,876	24								
		Total		30	100	2,060	100	137	100	19,944	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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	7	157	8	16	12	1,275	6	2.7	2.8	-.05	2.7	.03	2.8	-.11	
		2	Sometimes	13	43	601	29	37	27	5,777	29								
		3	Often	6	20	857	41	57	41	8,071	40								
		4	Very often	9	30	452	22	28	20	4,930	25								
			Total	30	100	2,067	100	138	100	20,053	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	6	20	432	21	38	27	3,822	19	2.3	2.3	-.05	2.2	.06	2.4	-.08	
		2	Sometimes	13	43	758	37	49	35	7,757	39								
		3	Often	7	23	606	29	32	23	5,539	28								
		4	Very often	4	13	272	13	20	14	2,907	15								
			Total	30	100	2,068	100	139	100	20,025	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	4	13	347	17	34	24	2,967	15	2.3	2.4	-.05	2.3	.04	2.4	-.12	
		2	Sometimes	16	53	848	41	50	36	8,071	40								
		3	Often	6	20	613	30	35	25	6,159	31								
		4	Very often	4	13	257	12	20	14	2,787	14								
			Total	30	100	2,065	100	139	100	19,984	100								
7. During the current school year, about how many papers, reports, or other writing tasks of the following length have you been assigned? (Include those not yet completed.)																			
a. Up to 5 pages	wrshortnum	0	None	7	23	102	5	7	5	832	4	3.1	6.6 ***	-.63	6.1 ***	-.55	6.9 ***	-.67	
	(Recoded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	10	33	421	21	38	28	3,723	19								
		4	3-5	8	27	636	31	43	31	6,299	32								
		8	6-10	4	13	495	24	28	20	5,010	25								
		13	11-15	1	3	205	10	10	7	2,103	11								
		18	16-20	0	0	79	4	4	3	867	4								
		23	More than 20	0	0	100	5	8	6	979	5								
			Total	30	100	2,038	100	138	100	19,813	100								
b. Between 6 and 10 pages	wrmednum	0	None	22	76	648	33	69	53	6,065	31	.8	2.3 *	-.47	1.9 *	-.36	2.3 *	-.46	
	(Recoded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	3	10	762	39	29	22	8,001	41								
		4	3-5	3	10	376	19	19	15	3,636	19								
		8	6-10	1	3	130	7	10	8	1,164	6								
		13	11-15	0	0	33	2	2	2	316	2								
		18	16-20	0	0	10	1	1	1	104	1								
		23	More than 20	0	0	7	0	0	0	86	0								
			Total	29	100	1,966	100	130	100	19,372	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

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				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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. 11 pages or more	wrlongnum	0	None	26	90	1,475	77	106	84	14,316	76	.4	.8	-.17	.7	-.15	.8	-.16	
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	2	7	311	16	12	10	3,404	18								
	4	3-5	0	0	55	3	2	2	622	3									
	8	6-10	1	3	30	2	3	2	272	1									
	13	11-15	0	0	24	1	2	2	154	1									
	18	16-20	0	0	8	0	1	1	51	0									
	23	More than 20	0	0	9	0	0	0	80	0									
	Total			29	100	1,912	100	126	100	18,899	100								
Estimated number of assigned pages of student writing.	wpages											21.1	48.2 *	-.46	42.9	-.40	48.8 *	-.47	
				(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	1	3	93	4	4	3	818	4	3.0	3.2	-.19	3.2	-.20	3.1	-.15	
		2	Sometimes	9	31	408	20	30	22	4,472	22								
		3	Often	8	28	621	30	42	30	6,027	30								
		4	Very often	11	38	948	46	63	45	8,744	44								
			Total	29	100	2,070	100	139	100	20,061	100								
b. People from an economic background other than your own	DDeconomic	1	Never	1	3	105	5	8	6	818	4	3.0	3.1	-.11	3.1	-.09	3.1	-.12	
		2	Sometimes	7	24	420	20	28	20	4,304	21								
		3	Often	12	41	702	34	48	35	6,813	34								
		4	Very often	9	31	838	41	55	40	8,093	40								
			Total	29	100	2,065	100	139	100	20,028	100								
c. People with religious beliefs other than your own	DDreligion	1	Never	3	10	122	6	7	5	1,114	6	2.7	3.0 *	-.40	3.0 *	-.42	3.1 *	-.43	
		2	Sometimes	9	31	509	25	36	26	4,791	24								
		3	Often	12	41	613	30	41	29	6,026	30								
		4	Very often	5	17	818	40	56	40	8,086	40								
			Total	29	100	2,062	100	140	100	20,017	100								
d. People with political views other than your own	DDpolitical	1	Never	0	0	129	6	9	6	1,136	6	3.1	3.0	.16	3.0	.10	3.0	.14	
		2	Sometimes	9	31	514	25	29	21	4,988	25								
		3	Often	7	24	660	32	48	35	6,451	32								
		4	Very often	13	45	754	37	53	38	7,405	37								
			Total	29	100	2,057	100	139	100	19,980	100								

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				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016			
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
				Count	%	Count	%	Count	%	Count	%	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	2	7	34	2	5	4	275	1	2.9	3.1	-.30	3.1	-.20	3.2	-.35	
		2	Sometimes	9	30	381	18	31	22	3,502	17								
		3	Often	9	30	932	45	52	37	8,856	44								
		4	Very often	10	33	718	35	52	37	7,399	37								
		Total		30	100	2,065	100	140	100	20,032	100								
b. Reviewed your notes after class	LSnotes	1	Never	0	0	87	4	1	1	801	4	3.2	3.0	.16	3.3	-.22	3.0	.17	
		2	Sometimes	8	27	526	26	23	17	5,285	26								
		3	Often	9	30	690	34	43	31	6,654	33								
		4	Very often	13	43	755	37	72	52	7,251	36								
		Total		30	100	2,058	100	139	100	19,991	100								
c. Summarized what you learned in class or from course materials	LSsummary	1	Never	2	7	138	7	6	4	1,167	6	2.8	2.9	-.12	3.1	-.32	2.9	-.14	
		2	Sometimes	10	33	574	28	36	26	5,655	28								
		3	Often	11	37	731	36	41	29	7,207	36								
		4	Very often	7	23	605	30	56	40	5,848	29								
		Total		30	100	2,048	100	139	100	19,877	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	10	0	3	2	80	0	5.4	5.6	-.21	5.7	-.21	5.7	-.24	
		2		1	3	21	1	0	0	176	1								
		3		1	3	58	3	4	3	515	3								
		4		3	10	179	9	14	10	1,670	8								
		5		11	37	622	30	36	26	5,874	29								
		6		8	27	631	31	39	28	6,478	32								
		7	Very much	6	20	544	26	44	31	5,243	26								
		Total		30	100	2,065	100	140	100	20,036	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		3	10	171	8	15	11	1,746	9	3%	10%	-.26	12%	-.33	9%	-.23	
		Do not plan to do		0	0	58	3	5	4	531	3								
		Plan to do		26	87	1,642	79	103	74	16,065	80								
		Done or in progress		1	3	197	10	16	12	1,722	9								
		Total		30	100	2,068	100	139	100	20,064	100								

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			Frequency Distributions								Statistical Comparisons ^k							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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
b. Hold a formal leadership role in a student organization or group	leader	(Means indicate the percentage who responded "Done or in progress.")	Have not decided	6	20	546	26	32	23	5,159	26	13%	12%	.05	12%	.06	12%	.03
			Do not plan to do	10	33	405	20	35	25	3,856	19							
			Plan to do	10	33	875	42	56	40	8,537	43							
			Done or in progress	4	13	241	12	16	12	2,469	12							
			Total	30	100	2,067	100	139	100	20,021	100							
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	learncom	(Means indicate the percentage who responded "Done or in progress.")	Have not decided	10	33	591	29	35	25	6,163	31	7%	17%	-.33	18%	-.35	16%	-.30
			Do not plan to do	11	37	463	22	38	27	5,080	25							
			Plan to do	7	23	652	32	41	29	5,562	28							
			Done or in progress	2	7	355	17	25	18	3,190	16							
			Total	30	100	2,061	100	139	100	19,995	100							
d. Participate in a study abroad program	abroad	(Means indicate the percentage who responded "Done or in progress.")	Have not decided	13	43	590	29	45	32	5,361	27	3%	3%	.00	0% *	.37	3%	.00
			Do not plan to do	4	13	536	26	45	32	4,528	23							
			Plan to do	12	40	868	42	49	35	9,453	47							
			Done or in progress	1	3	68	3	0	0	662	3							
			Total	30	100	2,062	100	139	100	20,004	100							
e. Work with a faculty member on a research project	research	(Means indicate the percentage who responded "Done or in progress.")	Have not decided	10	33	583	28	45	32	5,296	27	7%	8%	-.05	10%	-.12	8%	-.06
			Do not plan to do	3	10	247	12	18	13	2,027	10							
			Plan to do	15	50	1,069	52	62	45	11,008	55							
			Done or in progress	2	7	163	8	14	10	1,623	8							
			Total	30	100	2,062	100	139	100	19,954	100							
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone	(Means indicate the percentage who responded "Done or in progress.")	Have not decided	9	30	660	32	39	28	5,487	27	0%	2%	-.31	1%	-.17	2%	-.30
			Do not plan to do	3	10	168	8	16	12	1,347	7							
			Plan to do	18	60	1,181	57	83	60	12,680	64							
			Done or in progress	0	0	48	2	1	1	442	2							
			Total	30	100	2,057	100	139	100	19,956	100							

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

servcourse	1	2	3	4	Total	Mean	Effect size ⁿ	Mean	Effect size ⁿ
None	12	40	908	44	49	36	10,248	51	1.7
Some	16	53	966	47	81	59	8,352	42	
Most	2	7	139	7	5	4	1,117	6	
All	0	0	38	2	3	2	219	1	
Total	30	100	2,051	100	138	100	19,936	100	

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k								
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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		
13. Indicate the quality of your interactions with the following people at your institution.																				
a. Students	QIstudent	1	Poor	0	0	34	2	3	2	269	1	4.8	5.4 **	▼	-.49	5.3	-.37	5.5 **	▼	-.58
		2		2	7	49	2	4	3	371	2									
		3		3	10	109	5	11	8	931	5									
		4		8	28	243	12	18	13	2,077	10									
		5		7	24	513	25	28	20	5,025	25									
		6		5	17	547	26	44	32	5,768	29									
	7	Excellent		4	14	556	27	31	22	5,556	28									
	—	Not applicable		0	0	15	1	0	0	87	0									
		Total		29	100	2,066	100	139	100	20,084	100									
b. Academic advisors	QIadvisor	1	Poor	1	3	94	5	8	6	687	3	5.4	5.0	.21	5.0	.25	5.2	.13		
		2		0	0	129	6	9	7	1,010	5									
		3		2	7	174	8	11	8	1,588	8									
		4		6	20	293	14	22	16	2,720	14									
		5		5	17	394	19	20	14	3,925	20									
		6		6	20	405	20	33	24	4,276	21									
	7	Excellent		10	33	528	26	32	23	5,509	27									
	—	Not applicable		0	0	47	2	3	2	344	2									
		Total		30	100	2,064	100	138	100	20,059	100									
c. Faculty	QIfaculty	1	Poor	0	0	48	2	3	2	353	2	5.5	5.2	.18	5.2	.16	5.3	.09		
		2		0	0	74	4	7	5	566	3									
		3		2	7	114	6	4	3	1,121	6									
		4		5	17	305	15	17	12	2,540	13									
		5		5	17	562	27	43	31	5,060	25									
		6		13	43	506	25	36	26	5,751	29									
	7	Excellent		5	17	423	21	28	20	4,442	22									
	—	Not applicable		0	0	23	1	1	1	149	1									
		Total		30	100	2,055	100	139	100	19,982	100									

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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	
					%		%		%		%								
d. Student services staff (career services, student activities, housing, etc.)	QIstaff	1	Poor	1	3	108	5	9	6	798	4	4.8	4.9	-.04	4.8	-.01	5.0	-.15	
		2		1	3	118	6	5	4	881	4								
		3		4	14	160	8	15	11	1,410	7								
		4		2	7	283	14	17	12	2,736	14								
		5		10	34	397	19	26	19	4,201	21								
		6		4	14	419	20	30	22	4,399	22								
		7	Excellent	4	14	378	18	23	17	3,930	20								
		—	Not applicable	3	10	198	10	14	10	1,633	8								
	Total			29	100	2,061	100	139	100	19,988	100								
e. Other administrative staff and offices (registrar, financial aid, etc.)	QIadmin	1	Poor	1	3	133	6	17	12	913	5	4.7	4.8	-.05	4.5	.11	4.9	-.16	
		2		3	10	126	6	9	6	999	5								
		3		2	7	180	9	13	9	1,610	8								
		4		5	17	301	15	20	14	2,904	14								
		5		8	27	445	22	29	21	4,336	22								
		6		5	17	385	19	27	19	4,164	21								
		7	Excellent	4	13	364	18	21	15	3,743	19								
		—	Not applicable	2	7	132	6	3	2	1,369	7								
	Total			30	100	2,066	100	139	100	20,038	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	0	0	41	2	4	3	251	1	3.3	3.2	.10	3.2	.12	3.3	.00	
		2	Some	2	7	282	14	19	14	2,404	12								
		3	Quite a bit	17	57	904	44	61	44	8,357	42								
		4	Very much	11	37	831	40	56	40	8,941	45								
			Total			30	100	2,058	100	140	100								19,953
b. Providing support to help students succeed academically	SEacademic	1	Very little	0	0	72	4	6	4	531	3	3.0	3.1	-.16	3.1	-.15	3.2	-.25	
		2	Some	9	30	365	18	21	15	3,180	16								
		3	Quite a bit	12	40	841	41	63	45	8,006	40								
		4	Very much	9	30	772	38	50	36	8,127	41								
			Total			30	100	2,050	100	140	100								19,844
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	1	3	97	5	5	4	718	4	3.1	3.2	-.06	3.3	-.15	3.2	-.13	
		2	Some	6	20	318	15	22	16	2,884	15								
		3	Quite a bit	11	37	751	36	45	32	7,157	36								
		4	Very much	12	40	892	43	68	49	9,129	46								
			Total			30	100	2,058	100	140	100								19,888

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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
														Effect size ⁿ	Effect size ⁿ				
d. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	1	3	242	12	19	14	2,159	11	2.6	2.8	-.20	2.7	-.15	2.8	-.22	
		2	Some	16	53	568	28	38	28	5,582	28								
		3	Quite a bit	8	27	685	33	45	33	6,575	33								
		4	Very much	5	17	561	27	36	26	5,580	28								
		Total		30	100	2,056	100	138	100	19,896	100								
e. Providing opportunities to be involved socially	SEsocial	1	Very little	1	3	128	6	7	5	965	5	2.8	3.0	-.22	2.9	-.21	3.1	-.34	
		2	Some	9	30	475	23	39	28	4,065	20								
		3	Quite a bit	16	53	789	38	47	34	7,703	39								
		4	Very much	4	13	664	32	46	33	7,165	36								
		Total		30	100	2,056	100	139	100	19,898	100								
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	3	10	144	7	13	9	1,091	5	2.9	2.9	-.02	2.9	.05	3.0	-.11	
		2	Some	6	21	461	22	34	24	4,116	21								
		3	Quite a bit	10	34	809	39	48	35	7,736	39								
		4	Very much	10	34	640	31	44	32	6,924	35								
		Total		29	100	2,054	100	139	100	19,867	100								
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	12	40	472	23	40	29	4,106	21	1.8	2.3 **	-.52	2.3 *	-.43	2.4 ***	-.57	
		2	Some	12	40	715	35	44	32	7,026	35								
		3	Quite a bit	5	17	550	27	32	23	5,504	28								
		4	Very much	1	3	320	16	23	17	3,243	16								
		Total		30	100	2,057	100	139	100	19,879	100								
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	2	7	167	8	11	8	1,288	6	2.9	2.8	.06	2.9	.02	2.9	-.05	
		2	Some	6	20	559	27	35	25	4,717	24								
		3	Quite a bit	15	50	746	36	53	38	7,597	38								
		4	Very much	7	23	577	28	40	29	6,232	31								
		Total		30	100	2,049	100	139	100	19,834	100								
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	4	13	325	16	25	18	2,502	13	2.5	2.6	-.09	2.6	-.09	2.6	-.18	
		2	Some	12	40	666	33	43	31	6,380	32								
		3	Quite a bit	10	33	651	32	41	29	6,656	34								
		4	Very much	4	13	401	20	31	22	4,280	22								
		Total		30	100	2,043	100	140	100	19,818	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k																				
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016														
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 5 10 5 4 3 1 2	0 17 33 17 13 13 3 7	9 225 382 443 420 276 143 161	0 11 19 22 20 13 7 8	0 17 27 29 31 15 10 10	0 12 19 21 22 11 7 7	70 1,854 3,658 4,112 4,092 2,818 1,690 1,706	0 9 18 21 20 14 8 9	13.2	15.9	-.32	15.5	-.28	16.5 *	-0.39														
Total				30	100	2,059	100	139	100	20,000	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	6 17 4 0 1 1 0 1	20 57 13 0 3 3 0 3	678 744 306 152 102 43 14 14	33 36 15 7 5 2 1 1	53 46 20 9 8 1 1 1	38 33 14 6 6 1 1 1	5,496 7,289 3,420 1,742 1,075 452 187 235	28 37 17 9 5 2 1 1								5.2	5.0	.03	4.6	.10	5.8	-.08							
Total				30	100	2,053	100	139	100	19,896	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	21 2 5 1 1 0 0 0	70 7 17 3 3 0 0 0	1,602 101 151 91 82 23 1 5	78 5 7 4 4 1 0 0	102 4 13 6 8 3 0 2	74 3 9 4 6 2 0 1	15,325 1,124 1,762 933 573 153 39 49	77 6 9 5 3 1 0 0															2.6	2.4	.03	3.4	-.13	2.3	.05
Total				30	100	2,056	100	138	100	19,958	100																					

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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
														Effect size ⁿ	Effect size ⁿ				
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	14	47	1,447	71	91	65	14,915	75	7.9	▲	4.6 *	.38	5.5	.27	3.7 *	.54
	(Recoded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	3	10	104	5	7	5	942	5								
	8	6-10 hrs	2	7	119	6	7	5	1,005	5									
	13	11-15 hrs	3	10	99	5	12	9	818	4									
	18	16-20 hrs	3	10	93	5	9	6	931	5									
	23	21-25 hrs	4	13	73	4	6	4	549	3									
	28	26-30 hrs	1	3	50	2	1	1	347	2									
	33	More than 30 hrs	0	0	65	3	6	4	381	2									
Total				30	100	2,050	100	139	100	19,888	100								
Estimated number of hours working for pay	tmworkhrs	(Continuous variable created by NSSE)										10.5	6.9	.34	8.8	.14	5.9 *	.48	▲
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	15	52	1,049	51	70	50	10,707	54	3.3	▲	2.8	.12	3.0	.06	2.4	.22
	(Recoded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	10	34	716	35	45	32	6,853	35								
	8	6-10 hrs	2	7	154	8	15	11	1,272	6									
	13	11-15 hrs	0	0	63	3	5	4	487	2									
	18	16-20 hrs	1	3	35	2	3	2	281	1									
	23	21-25 hrs	0	0	15	1	1	1	115	1									
	28	26-30 hrs	0	0	7	0	1	1	40	0									
	33	More than 30 hrs	1	3	9	0	0	0	55	0									
Total				29	100	2,048	100	140	100	19,810	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	62	3	7	5	323	2	12.2	▲	11.0	.15	12.0	.02	11.6	.07
	(Recoded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	5	17	575	28	36	26	4,634	23								
	8	6-10 hrs	8	27	545	27	31	22	5,738	29									
	13	11-15 hrs	11	37	367	18	22	16	4,008	20									
	18	16-20 hrs	3	10	233	11	17	12	2,451	12									
	23	21-25 hrs	1	3	119	6	11	8	1,190	6									
	28	26-30 hrs	0	0	42	2	2	1	550	3									
	33	More than 30 hrs	2	7	105	5	12	9	977	5									
Total				30	100	2,048	100	138	100	19,871	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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	22	73	1,508	74	97	69	15,917	80	3.5	2.6	.13	3.9	-.05	1.8	.31	
	(Recoded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	2	7	246	12	17	12	1,987	10								
	8	6-10 hrs	1	3	101	5	9	6	775	4									
	13	11-15 hrs	3	10	83	4	3	2	468	2									
	18	16-20 hrs	1	3	46	2	4	3	290	1									
	23	21-25 hrs	0	0	20	1	2	1	155	1									
	28	26-30 hrs	0	0	6	0	0	0	62	0									
	33	More than 30 hrs	1	3	39	2	8	6	238	1									
	Total		30	100	2,049	100	140	100	19,892	100									
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	10	33	731	36	46	33	8,878	44	4.7	4.5	.03	4.7	.00	3.4	.24	
	(Recoded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	13	43	783	38	58	41	7,185	36								
	8	6-10 hrs	3	10	296	14	17	12	2,277	11									
	13	11-15 hrs	2	7	124	6	10	7	837	4									
	18	16-20 hrs	1	3	63	3	3	2	389	2									
	23	21-25 hrs	0	0	22	1	3	2	168	1									
	28	26-30 hrs	0	0	14	1	2	1	70	0									
	33	More than 30 hrs	1	3	25	1	1	1	148	1									
Total		30	100	2,058	100	140	100	19,952	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	10	34	290	14	24	17	2,410	12	2.2	2.6 *	-0.43	2.5	-0.31	2.7 *	-0.48		
	(Revised for 2014. Comparison data are limited to NSSE 2014 participating institutions.)	2	Some	8	28	742	36	56	41	7,176								36	
	3	About half	8	28	554	27	31	22	5,778	29									
	4	Most	2	7	341	17	16	12	3,424	17									
	5	Almost all	1	3	126	6	11	8	1,135	6									
	Total		29	100	2,053	100	138	100	19,923	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)										5.0	6.8	-0.32	6.5	-0.24	7.3 *	-0.38		

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

Item wording or description	Variable name ^l	Values ^m	Response options	Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
				Count	%	Count	%	Count	%	Count	%	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ		
	tmreadinghrscol	1	0 hrs	0	0	6	0	0	0	61	0								
	(Collapsed version of tmreadinghrs created by NSSE.)	2	More than zero, up to 5 hrs	20	69	996	49	77	56	9,224	46								
		3	More than 5, up to 10 hrs	5	17	617	30	32	23	5,916	30								
		4	More than 10, up to 15 hrs	2	7	217	11	14	10	2,314	12								
		5	More than 15, up to 20 hrs	1	3	107	5	7	5	1,162	6								
		6	More than 20, up to 25 hrs	0	0	74	4	5	4	860	4								
		7	More than 25 hrs	1	3	24	1	2	1	304	2								
			Total	29	100	2,041	100	137	100	19,841	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	9	31	176	9	19	14	1,729	9	2.2	2.8 *** ▼	-.66	2.6 * ▼	-.43	2.8 *** ▼	-.64
		2	Some	8	28	560	27	44	31	5,515	28							
		3	Quite a bit	9	31	827	40	48	34	8,057	40							
		4	Very much	3	10	503	24	29	21	4,711	24							
			Total	29	100	2,066	100	140	100	20,012	100							
b. Speaking clearly and effectively	pgspeak	1	Very little	6	20	249	12	22	16	2,640	13	2.2	2.7 * ▼	-.46	2.6	-.37	2.6 * ▼	-.39
		2	Some	15	50	616	30	41	29	6,544	33							
		3	Quite a bit	5	17	775	37	48	35	6,968	35							
		4	Very much	4	13	427	21	28	20	3,801	19							
			Total	30	100	2,067	100	139	100	19,953	100							
c. Thinking critically and analytically	pgthink	1	Very little	1	3	77	4	10	7	646	3	3.1	3.1	.04	3.0	.10	3.1	.00
		2	Some	5	17	371	18	23	17	3,491	17							
		3	Quite a bit	13	43	874	42	57	41	8,460	42							
		4	Very much	11	37	736	36	49	35	7,368	37							
			Total	30	100	2,058	100	139	100	19,965	100							
d. Analyzing numerical and statistical information	pganalyze	1	Very little	3	10	163	8	13	9	1,490	7	2.8	2.8	-.01	2.8	.04	2.9	-.04
		2	Some	8	27	546	26	37	27	5,253	26							
		3	Quite a bit	10	33	804	39	52	38	7,666	38							
		4	Very much	9	30	548	27	35	26	5,564	28							
			Total	30	100	2,061	100	137	100	19,973	100							

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
				Count	%	Count	%	Count	%	Count	%	Mean	Effect size ⁿ	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	4	13	366	18	30	21	3,217	16	2.5	2.5	-.03	2.4	.04	2.5	-.05	
		2	Some	13	43	687	33	48	34	6,933	35								
		3	Quite a bit	8	27	631	31	35	25	6,190	31								
		4	Very much	5	17	378	18	27	19	3,606	18								
		Total		30	100	2,062	100	140	100	19,946	100								
f. Working effectively with others	pgothers	1	Very little	3	10	140	7	12	9	1,427	7	2.5	2.8 *	-.43	2.8	-.32	2.8 *	-.40	
		2	Some	13	43	568	28	44	31	5,698	29								
		3	Quite a bit	11	37	833	40	51	36	7,891	40								
		4	Very much	3	10	524	25	33	24	4,956	25								
		Total		30	100	2,065	100	140	100	19,972	100								
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	5	17	261	13	23	17	2,693	13	2.3	2.7 *	-.43	2.6	-.32	2.7 *	-.41	
		2	Some	14	47	622	30	42	30	5,781	29								
		3	Quite a bit	9	30	692	34	43	31	6,882	34								
		4	Very much	2	7	486	24	30	22	4,601	23								
		Total		30	100	2,061	100	138	100	19,957	100								
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	5	17	247	12	20	14	2,371	12	2.3	2.7 *	-.45	2.6	-.34	2.7 *	-.46	
		2	Some	14	48	610	30	47	34	5,888	29								
		3	Quite a bit	7	24	685	33	40	29	6,726	34								
		4	Very much	3	10	522	25	33	24	4,990	25								
		Total		29	100	2,064	100	140	100	19,975	100								
i. Solving complex real-world problems	pgprobsolve	1	Very little	6	20	265	13	23	17	2,543	13	2.3	2.6	-.28	2.5	-.19	2.6	-.29	
		2	Some	12	40	711	34	43	31	6,762	34								
		3	Quite a bit	8	27	676	33	51	37	6,745	34								
		4	Very much	4	13	415	20	22	16	3,916	20								
		Total		30	100	2,067	100	139	100	19,966	100								
j. Being an informed and active citizen	pgcitizen	1	Very little	4	13	322	16	23	17	2,873	14	2.3	2.6	-.22	2.5	-.20	2.6	-.25	
		2	Some	15	50	687	33	47	34	6,608	33								
		3	Quite a bit	8	27	641	31	42	30	6,507	33								
		4	Very much	3	10	407	20	27	19	3,920	20								
		Total		30	100	2,057	100	139	100	19,908	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

First-Year Students^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k								
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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	Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		
														Effect size ⁿ	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	0	0	41	2	5	4	322	2	3.4	3.1	.32	3.0 *	.48	3.2	.19		
		2	Fair	1	3	300	14	28	20	2,360	12									
		3	Good	17	57	1,066	51	68	49	9,793	49									
		4	Excellent	12	40	665	32	39	28	7,604	38									
			Total	30	100	2,072	100	140	100	20,079	100									
19. If you could start over again, would you go to the same institution you are now attending?																				
	sameinst	1	Definitely no	0	0	91	4	8	6	789	4	3.3	3.1	.24	3.0	.31	3.2	.13		
		2	Probably no	3	10	312	15	25	18	2,514	13									
		3	Probably yes	15	50	951	46	59	42	8,713	43									
		4	Definitely yes	12	40	717	35	47	34	8,091	40									
			Total	30	100	2,071	100	139	100	20,107	100									

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k													
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016				Your seniors compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech	Carnegie Class	THEC Peer Group	NSSE 2015 & 2016	Effect size ⁿ		Effect size ⁿ							
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Mean	Mean	Mean	Mean	Effect size ⁿ	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	3 20 17 15	5 36 31 27	45 551 639 772	2 27 32 38	5 49 50 62	3 30 30 37	551 5,715 6,909 8,434	3 26 32 39	2.8	3.1 *	-0.31	3.0	-0.24	3.1 *	-0.32							
Total				55	100	2,007	100	166	100	21,609	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	16 20 12 6	30 37 22 11	439 732 489 339	22 37 24 17	33 58 41 34	20 35 25 20	4,816 7,794 5,387 3,550	22 36 25 16								2.1	2.4	-0.22	2.5	-0.30	2.4	-0.21
Total				54	100	1,999	100	166	100	21,547	100														
c. Come to class without completing readings or assignments	unpreparedr (Reverse-coded version of unprepared created by NSSE.)	1 2 3 4	Very often Often Sometimes Never	2 5 29 19	4 9 53 35	123 271 1,151 457	6 14 57 23	8 29 78 50	5 18 47 30	1,247 3,033 12,336 4,922	6 14 57 23														
Total				55	100	2,002	100	165	100	21,538	100														
d. Attended an art exhibit, play or other arts performance (dance, music, etc.)	attendart	1 2 3 4	Never Sometimes Often Very often	18 27 8 2	33 49 15 4	869 806 217 108	43 40 11 5	75 64 20 7	45 39 12 4	8,395 8,864 2,870 1,394	39 41 13 6	1.9	1.8	0.13	1.8	0.17	1.9	0.02							
Total				55	100	2,000	100	166	100	21,523	100														
e. Asked another student to help you understand course material	CLaskhelp	1 2 3 4	Never Sometimes Often Very often	6 29 14 6	11 53 25 11	149 767 664 422	7 38 33 21	20 67 44 34	12 41 27 21	1,684 8,455 7,057 4,342	8 39 33 20								2.4	2.7 **	-0.36	2.6	-0.21	2.7 *	-0.33
Total				55	100	2,002	100	165	100	21,538	100														
f. Explained course material to one or more students	CLexplain	1 2 3 4	Never Sometimes Often Very often	2 18 21 14	4 33 38 25	25 501 821 654	1 25 41 33	4 37 77 49	2 22 46 29	385 5,595 8,756 6,796	2 26 41 32														
Total				55	100	2,001	100	167	100	21,532	100														

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
												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	4	8	204	10	23	14	2,417	11	2.6	2.8	-.22	2.7	-.15	2.7	-.16	
		2	Sometimes	22	42	624	31	50	30	7,027	33								
		3	Often	19	37	597	30	45	27	6,447	30								
		4	Very often	7	13	579	29	48	29	5,681	26								
		Total		52	100	2,004	100	166	100	21,572	100								
h. Worked with other students on course projects or assignments	CLproject	1	Never	1	2	70	3	7	4	1,012	5	2.8	2.9	-.07	2.9	-.04	2.8	-.03	
		2	Sometimes	20	36	647	32	55	33	6,999	32								
		3	Often	22	40	744	37	59	36	7,876	37								
		4	Very often	12	22	544	27	45	27	5,687	26								
		Total		55	100	2,005	100	166	100	21,574	100								
i. Given a course presentation	present	1	Never	7	13	203	10	18	11	2,350	11	2.5	2.6	-.15	2.6	-.08	2.6	-.12	
		2	Sometimes	22	40	756	38	64	39	8,159	38								
		3	Often	18	33	624	31	57	34	6,828	32								
		4	Very often	8	15	418	21	27	16	4,218	20								
		Total		55	100	2,001	100	166	100	21,555	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	7	58	3	4	2	622	3	2.9	3.0	-.07	3.0	-.09	3.0	-.07	
		2	Sometimes	12	22	542	27	42	25	5,844	27								
		3	Often	24	44	810	40	72	44	8,738	41								
		4	Very often	15	27	596	30	47	28	6,363	30								
		Total		55	100	2,006	100	165	100	21,567	100								
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	9	16	194	10	20	12	1,892	9	2.4	2.6 *	-.28	2.6	-.21	2.6 *	-.31	
		2	Sometimes	24	44	756	38	62	38	8,083	38								
		3	Often	15	27	670	34	55	33	7,279	34								
		4	Very often	7	13	373	19	28	17	4,239	20								
		Total		55	100	1,993	100	165	100	21,493	100								
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIDiverse	1	Never	11	20	366	18	38	23	3,678	17	2.1	2.4 *	-.28	2.2	-.15	2.4 *	-.29	
		2	Sometimes	31	56	820	41	64	39	9,033	42								
		3	Often	9	16	518	26	46	28	5,673	26								
		4	Very often	4	7	291	15	16	10	3,107	14								
		Total		55	100	1,995	100	164	100	21,491	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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	
d. Examined the strengths and weaknesses of your own views on a topic or issue	RIownview	1	Never	2	4	136	7	11	7	1,385	6	2.7	2.7	-.09	2.7	-.06	2.7	-.11	
		2	Sometimes	19	35	673	34	55	34	7,133	33								
		3	Often	30	55	780	39	70	43	8,542	40								
		4	Very often	4	7	409	20	28	17	4,416	21								
		Total		55	100	1,998	100	164	100	21,476	100								
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	RIperspect	1	Never	3	5	86	4	9	5	1,026	5	2.7	2.9	-.15	2.8	-.12	2.9	-.13	
		2	Sometimes	20	36	586	29	45	27	6,364	30								
		3	Often	20	36	832	42	73	44	8,812	41								
		4	Very often	12	22	494	25	38	23	5,270	25								
		Total		55	100	1,998	100	165	100	21,472	100								
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	4	7	55	3	8	5	591	3	2.6	2.9 **	-.37	2.9	-.30	2.9 **	-.39	
		2	Sometimes	24	44	594	30	49	30	6,238	29								
		3	Often	17	31	836	42	67	41	9,136	43								
		4	Very often	10	18	511	26	41	25	5,508	26								
		Total		55	100	1,996	100	165	100	21,473	100								
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	2	4	26	1	1	1	274	1	3.1	3.2	-.10	3.2	-.15	3.2	-.12	
		2	Sometimes	10	18	356	18	28	17	3,616	17								
		3	Often	24	44	867	44	71	44	9,438	44								
		4	Very often	19	35	733	37	63	39	8,092	38								
		Total		55	100	1,982	100	163	100	21,420	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	8	15	237	12	19	12	2,584	12	2.7	2.6	.09	2.6	.14	2.6	.09	
		2	Sometimes	14	25	748	38	66	40	8,111	38								
		3	Often	20	36	562	28	46	28	5,990	28								
		4	Very often	13	24	440	22	32	20	4,816	22								
		Total		55	100	1,987	100	163	100	21,501	100								
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	19	35	640	32	54	33	6,969	32	2.3	2.2	.05	2.1	.15	2.2	.06	
		2	Sometimes	13	24	616	31	53	32	6,608	31								
		3	Often	12	22	387	19	40	24	4,292	20								
		4	Very often	11	20	343	17	17	10	3,603	17								
		Total		55	100	1,986	100	164	100	21,472	100								

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Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

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				Frequency Distributions								Statistical Comparisons ^k													
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016				Your seniors compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech	Carnegie Class	THEC Peer Group		NSSE 2015 & 2016									
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ							
c. Discussed course topics, ideas, or concepts with a faculty member outside of class	SFdiscuss	1	Never	15	28	334	17	32	19	3,684	17	2.3	2.4	-.19	2.4	-.14	2.4	-.18							
		2	Sometimes	16	30	791	40	60	36	8,505	40														
		3	Often	17	31	506	25	48	29	5,650	26														
		4	Very often	6	11	354	18	25	15	3,625	17														
		Total		54	100	1,985	100	165	100	21,464	100														
d. Discussed your academic performance with a faculty member	SFperform	1	Never	13	24	380	19	33	20	4,190	20	2.2	2.3	-.14	2.3	-.13	2.3	-.12							
		2	Sometimes	23	42	855	43	69	42	9,384	44														
		3	Often	14	25	462	23	40	24	4,931	23														
		4	Very often	5	9	285	14	23	14	2,942	14														
		Total		55	100	1,982	100	165	100	21,447	100														
4. During the current school year, how much has your coursework emphasized the following?																									
a. Memorizing course material	memorize	1	Very little	2	4	96	5	7	4	951	4	3.2	3.1	.17	3.0	.25	3.0	.20							
		2	Some	9	16	398	20	39	24	4,642	22														
		3	Quite a bit	19	35	776	39	65	39	8,390	39														
		4	Very much	25	45	724	36	54	33	7,539	35														
		Total		55	100	1,994	100	165	100	21,522	100														
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	2	4	43	2	3	2	498	2	3.1	3.2	-.19	3.1	-.08	3.2	-.18							
		2	Some	11	20	297	15	35	21	3,245	15														
		3	Quite a bit	23	42	824	41	63	38	8,957	42														
		4	Very much	19	35	825	41	64	39	8,795	41														
		Total		55	100	1,989	100	165	100	21,495	100														
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	4	7	63	3	5	3	802	4	2.9	3.1	-.23	3.1	-.23	3.1	-.22							
		2	Some	15	27	403	20	39	24	4,114	19														
		3	Quite a bit	17	31	744	37	50	30	8,437	39														
		4	Very much	19	35	777	39	71	43	8,085	38														
		Total		55	100	1,987	100	165	100	21,438	100														
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	7	13	170	9	13	8	1,865	9	2.6	2.8	-.24	2.8	-.19	2.8	-.20							
		2	Some	19	35	532	27	47	29	6,121	29														
		3	Quite a bit	17	31	731	37	64	39	7,888	37														
		4	Very much	12	22	555	28	39	24	5,582	26														
		Total		55	100	1,988	100	163	100	21,456	100														

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016			
				NSSE 2015 & 2016				Tennessee Tech				Your seniors compared with							
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
				Count	%	Count	%	Count	%	Count	%	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	6	11	98	5	4	2	1,231	6	2.7	3.0 *	-0.34	3.0 *	-0.39	2.9 *	-0.29	
		2	Some	14	25	494	25	44	27	5,417	25								
		3	Quite a bit	27	49	747	38	63	39	8,423	39								
		4	Very much	8	15	639	32	52	32	6,357	30								
		Total		55	100	1,978	100	163	100	21,428	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	1	2	36	2	4	2	347	2	3.1	3.2	-0.20	3.2	-0.20	3.2	-0.20	
		2	Some	11	20	315	16	28	17	3,251	15								
		3	Quite a bit	27	49	843	42	62	38	9,604	45								
		4	Very much	16	29	802	40	71	43	8,378	39								
		Total		55	100	1,996	100	165	100	21,580	100								
b. Taught course sessions in an organized way	ETorganize	1	Very little	3	5	49	2	7	4	481	2	2.9	3.1 *	-0.30	3.0	-0.12	3.1 *	-0.30	
		2	Some	13	24	347	17	36	22	3,607	17								
		3	Quite a bit	25	45	869	44	70	42	9,880	46								
		4	Very much	14	25	729	37	52	32	7,594	35								
		Total		55	100	1,994	100	165	100	21,562	100								
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	2	4	38	2	5	3	481	2	3.0	3.2 *	-0.29	3.1	-0.12	3.2 *	-0.29	
		2	Some	11	20	315	16	35	21	3,060	14								
		3	Quite a bit	26	47	755	38	60	37	8,661	40								
		4	Very much	16	29	881	44	64	39	9,318	43								
		Total		55	100	1,989	100	164	100	21,520	100								
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	10	18	231	12	20	12	2,416	11	2.4	2.7 *	-0.30	2.7	-0.23	2.7 *	-0.29	
		2	Some	20	36	587	29	53	33	6,561	31								
		3	Quite a bit	16	29	675	34	53	33	7,204	33								
		4	Very much	9	16	499	25	37	23	5,328	25								
		Total		55	100	1,992	100	163	100	21,509	100								
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	6	11	140	7	15	9	1,457	7	2.8	2.8	-0.09	2.7	.03	2.9	-0.11	
		2	Some	11	20	560	28	50	30	5,786	27								
		3	Quite a bit	28	51	751	38	62	38	8,565	40								
		4	Very much	10	18	534	27	37	23	5,654	26								
		Total		55	100	1,985	100	164	100	21,462	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

Item wording or description	Variable name ^l	Values ^m	Response options	Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
				Count	%	Count	%	Count	%	Count	%	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	9	93	5	8	5	919	4	2.9	3.0	-.09	3.0	-.06	3.0	-.10	
		2	Sometimes	11	20	457	23	42	25	4,986	23								
		3	Often	21	38	747	37	57	35	8,205	38								
		4	Very often	18	33	699	35	58	35	7,476	35								
			Total	55	100	1,996	100	165	100	21,586	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	8	15	312	16	24	15	3,246	15	2.6	2.6	.01	2.5	.04	2.6	-.02	
		2	Sometimes	17	31	702	35	66	40	7,222	33								
		3	Often	21	38	547	27	40	24	6,299	29								
		4	Very often	9	16	433	22	35	21	4,799	22								
			Total	55	100	1,994	100	165	100	21,566	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	11	20	207	10	16	10	2,131	10	2.4	2.7 *	-0.30	2.7	-0.25	2.7 *	-0.32	
		2	Sometimes	21	38	656	33	62	38	6,958	32								
		3	Often	12	22	647	32	49	30	7,354	34								
		4	Very often	11	20	486	24	38	23	5,109	24								
			Total	55	100	1,996	100	165	100	21,552	100								
7. During the current school year, about how many papers, reports, or other writing tasks of the following length have you been assigned? (Include those not yet completed.)																			
a. Up to 5 pages	wrshortnum	0	None	5	9	139	7	13	8	1,568	7	6.3	6.9	-0.10	6.9	-0.09	7.1	-0.12	
		1.5	1-2	14	26	411	21	29	18	4,403	21								
		4	3-5	14	26	562	29	49	31	5,948	28								
		8	6-10	10	19	425	22	36	23	4,369	21								
		13	11-15	5	9	181	9	15	9	2,106	10								
		18	16-20	4	7	79	4	8	5	1,097	5								
		23	More than 20	2	4	152	8	10	6	1,564	7								
			Total	54	100	1,949	100	160	100	21,055	100								
b. Between 6 and 10 pages	wrmednum	0	None	27	50	480	25	37	23	5,089	24	1.5	3.3 ***	-0.44	3.0 ***	-0.46	3.1 ***	-0.42	
		1.5	1-2	17	31	681	35	60	38	7,848	38								
		4	3-5	8	15	462	24	40	25	4,824	23								
		8	6-10	1	2	193	10	13	8	1,951	9								
		13	11-15	1	2	65	3	7	4	658	3								
		18	16-20	0	0	21	1	0	0	222	1								
		23	More than 20	0	0	29	2	1	1	269	1								
			Total	54	100	1,931	100	158	100	20,861	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions						Statistical Comparisons ^k										
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		
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	38	73	928	49	70	45	9,836	48	.8			1.7 *	▼	1.6 *	-0.32	1.7 *	-0.28
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	10	19	651	34	64	41	7,609	37									
		4	3-5	2	4	184	10	12	8	1,848	9									
		8	6-10	2	4	63	3	8	5	625	3									
		13	11-15	0	0	32	2	1	1	293	1									
		18	16-20	0	0	11	1	0	0	119	1									
		23	More than 20	0	0	18	1	1	1	186	1									
		Total		52	100	1,887	100	156	100	20,516	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.)									41.9		71.1 ***	▼	66.1 *	-0.39	69.2 ***	-0.34	
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	4	7	94	5	5	3	1,026	5	2.9			3.2 *	▼	3.1	-0.24	3.1	-0.24
		2	Sometimes	16	29	420	21	44	27	5,156	24									
		3	Often	18	33	556	28	47	28	6,155	28									
		4	Very often	17	31	937	47	69	42	9,263	43									
			Total	55	100	2,007	100	165	100	21,600	100									
b. People from an economic background other than your own	DDeconomic	1	Never	3	5	84	4	4	2	870	4	3.1			3.1	-0.08	3.0	.01	3.1	-0.06
		2	Sometimes	12	22	431	22	45	27	4,710	22									
		3	Often	19	35	636	32	54	33	7,260	34									
		4	Very often	21	38	845	42	61	37	8,716	40									
			Total	55	100	1,996	100	164	100	21,556	100									
c. People with religious beliefs other than your own	DDreligion	1	Never	3	5	118	6	4	2	1,189	6	3.1			3.1	.07	3.1	.01	3.1	.07
		2	Sometimes	11	20	485	24	43	26	5,111	24									
		3	Often	17	31	563	28	46	28	6,438	30									
		4	Very often	24	44	837	42	71	43	8,811	41									
			Total	55	100	2,003	100	164	100	21,549	100									
d. People with political views other than your own	DDpolitical	1	Never	3	5	112	6	8	5	1,183	6	3.1			3.0	.05	3.1	.01	3.0	.07
		2	Sometimes	13	24	476	24	37	23	5,330	25									
		3	Often	15	27	608	31	52	32	6,762	31									
		4	Very often	24	44	796	40	67	41	8,212	38									
			Total	55	100	1,992	100	164	100	21,487	100									

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

Item wording or description				Response options				Frequency Distributions				Statistical Comparisons ^k											
								Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
								Count	%	Count	%	Count	%	Count	%	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	3	5	40	2	5	3	476	2	3.0	3.2 **	-0.36	3.3 *	-0.40	3.2 *	-0.33					
		2	Sometimes	11	20	309	15	24	15	3,336	15												
		3	Often	26	47	762	38	51	31	8,612	40												
		4	Very often	15	27	886	44	83	51	9,144	42												
		Total		55	100	1,997	100	163	100	21,568	100												
b. Reviewed your notes after class	LSnotes	1	Never	3	6	98	5	4	2	1,330	6	3.1	3.0	.05	3.2	-0.16	2.9	.12					
		2	Sometimes	14	26	547	27	31	19	6,101	28												
		3	Often	14	26	589	29	58	36	6,536	30												
		4	Very often	23	43	767	38	70	43	7,563	35												
		Total		54	100	2,001	100	163	100	21,530	100												
c. Summarized what you learned in class or from course materials	LSsummary	1	Never	5	9	120	6	8	5	1,416	7	2.8	2.9	-0.12	3.0	-0.21	2.9	-0.08					
		2	Sometimes	18	33	533	27	36	22	5,855	27												
		3	Often	13	24	671	34	62	38	7,374	34												
		4	Very often	19	35	666	33	57	35	6,753	32												
		Total		55	100	1,990	100	163	100	21,398	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	11	1	2	1	119	1	5.5	5.7	-0.19	5.7	-0.18	5.7	-0.16					
		2		1	2	21	1	1	1	204	1												
		3		1	2	51	3	7	4	585	3												
		4		5	9	160	8	11	7	1,680	8												
		5		20	37	524	26	38	23	5,917	27												
		6		16	30	608	30	54	33	7,029	33												
		7	Very much	11	20	625	31	51	31	5,997	28												
		Total		54	100	2,000	100	164	100	21,531	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		5	9	176	9	18	11	1,712	8	40%	48%	-0.15	45%	-0.10	51%	-0.23					
		Do not plan to do		19	35	360	18	35	21	3,839	18												
		Plan to do		9	16	511	26	38	23	4,974	23												
		Done or in progress		22	40	954	48	75	45	11,040	51												
		Total		55	100	2,001	100	166	100	21,565	100												

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

			Frequency Distributions								Statistical Comparisons ^k							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
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
b. Hold a formal leadership role in a student organization or group	leader		Have not decided	4	7	185	9	12	7	1,647	8	49%	44%	.11	41%	.16	47%	.04
			Do not plan to do	23	42	796	40	73	44	8,296	39							
			Plan to do	1	2	142	7	13	8	1,436	7							
			Done or in progress	27	49	875	44	68	41	10,146	47							
			Total	55	100	1,998	100	166	100	21,525	100							
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	learncom		Have not decided	8	15	253	13	23	14	2,337	11	18%	27%	-.22	22%	-.10	26%	-.18
			Do not plan to do	36	65	1,015	51	90	54	12,032	56							
			Plan to do	1	2	183	9	16	10	1,622	8							
			Done or in progress	10	18	546	27	37	22	5,510	26							
			Total	55	100	1,997	100	166	100	21,501	100							
d. Participate in a study abroad program	abroad		Have not decided	5	9	230	12	17	10	2,115	10	18%	13%	.15	11%	.20	18%	.00
			Do not plan to do	35	64	1,331	67	108	66	14,005	65							
			Plan to do	5	9	177	9	20	12	1,459	7							
			Done or in progress	10	18	254	13	18	11	3,901	18							
			Total	55	100	1,992	100	163	100	21,480	100							
e. Work with a faculty member on a research project	research		Have not decided	5	9	214	11	14	8	1,977	9	44%	48%	-.08	45%	-.02	50%	-.14
			Do not plan to do	21	38	524	26	54	33	5,637	26							
			Plan to do	5	9	306	15	23	14	3,026	14							
			Done or in progress	24	44	952	48	74	45	10,826	50							
			Total	55	100	1,996	100	165	100	21,466	100							
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone		Have not decided	3	5	217	11	9	5	1,766	8	29%	40%	-.24	45% *	-.33	49% **	-.40
			Do not plan to do	24	44	583	29	34	20	5,254	24							
			Plan to do	12	22	390	20	48	29	4,043	19							
			Done or in progress	16	29	809	40	75	45	10,440	49							
			Total	55	100	1,999	100	166	100	21,503	100							
12. About how many of your courses at this institution have included a community-based project (service-learning)?																		
	servcourse		1 None	31	56	855	43	81	49	10,193	47	1.5	1.6 *	-.28	1.6	-.17	1.6	-.18
			2 Some	22	40	1,016	51	75	45	10,258	48							
			3 Most	2	4	112	6	9	5	893	4							
			4 All	0	0	20	1	1	1	165	1							
			Total	55	100	2,003	100	166	100	21,509	100							

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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	
13. Indicate the quality of your interactions with the following people at your institution.																			
a. Students	QIstudent	1	Poor	1	2	31	2	4	2	258	1	5.5	5.6	-.13	5.5	-.04	5.6	-.12	
		2		3	5	25	1	2	1	344	2								
		3		2	4	83	4	12	7	867	4								
		4		5	9	171	9	14	8	1,940	9								
		5		12	22	485	24	33	20	5,200	24								
		6		16	29	604	30	53	32	6,461	30								
		7	Excellent	16	29	606	30	47	28	6,462	30								
		—	Not applicable	0	0	3	0	0	0	69	0								
			Total	55	100	2,008	100	165	100	21,601	100								
b. Academic advisors	QIadvisor	1	Poor	2	4	92	5	13	8	1,080	5	5.3	5.1	.09	4.8	.28	5.2	.06	
		2		3	5	103	5	10	6	1,116	5								
		3		5	9	186	9	18	11	1,658	8								
		4		3	5	246	12	21	13	2,518	12								
		5		10	18	361	18	33	20	3,821	18								
		6		17	31	395	20	34	20	4,472	21								
		7	Excellent	15	27	594	30	36	22	6,708	31								
		—	Not applicable	0	0	30	1	1	1	204	1								
			Total	55	100	2,007	100	166	100	21,577	100								
c. Faculty	QIfaculty	1	Poor	0	0	39	2	4	2	310	1	5.5	5.6	-.03	5.1	.26	5.6	-.03	
		2		2	4	37	2	8	5	440	2								
		3		2	4	98	5	13	8	925	4								
		4		7	13	201	10	21	13	2,201	10								
		5		13	24	413	21	42	26	4,897	23								
		6		16	29	609	31	41	25	6,591	31								
		7	Excellent	15	27	591	30	34	21	6,039	28								
		—	Not applicable	0	0	6	0	0	0	77	0								
			Total	55	100	1,994	100	163	100	21,480	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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
														Effect size ⁿ	Effect size ⁿ				
d. Student services staff (career services, student activities, housing, etc.)	QIstaff	1	Poor	3	5	132	7	14	8	1,155	5	4.9	4.7	.06	4.4	.23	4.8	.03	
		2		4	7	108	5	14	8	1,079	5								
		3		1	2	133	7	10	6	1,656	8								
		4		9	16	282	14	30	18	3,129	15								
		5		13	24	385	19	31	19	4,437	21								
		6		12	22	351	18	24	15	4,044	19								
		7	Excellent	8	15	311	16	22	13	3,309	15								
		—	Not applicable	5	9	295	15	20	12	2,711	13								
	Total			55	100	1,997	100	165	100	21,520	100								
e. Other administrative staff and offices (registrar, financial aid, etc.)	QIadmin	1	Poor	3	6	159	8	19	12	1,277	6	4.6	4.7	-.02	4.4	.15	4.8	-.07	
		2		4	8	126	6	14	9	1,248	6								
		3		6	11	159	8	15	9	1,947	9								
		4		9	17	329	16	27	16	3,596	17								
		5		13	25	451	23	36	22	4,854	23								
		6		8	15	389	19	28	17	4,375	20								
		7	Excellent	9	17	316	16	22	13	3,423	16								
		—	Not applicable	1	2	70	4	3	2	838	4								
	Total			53	100	1,999	100	164	100	21,558	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	2	39	2	1	1	373	2	3.1	3.2	-.16	3.2	-.09	3.3	-.20	
		2	Some	9	16	284	14	31	19	2,706	13								
		3	Quite a bit	27	49	819	41	68	41	9,007	42								
		4	Very much	18	33	856	43	65	39	9,447	44								
			Total			55	100	1,998	100	165	100								21,533
b. Providing support to help students succeed academically	SEacademic	1	Very little	4	7	82	4	5	3	906	4	2.9	3.0	-.20	2.9	-.10	3.0	-.21	
		2	Some	13	24	439	22	49	30	4,501	21								
		3	Quite a bit	25	45	815	41	62	38	9,088	42								
		4	Very much	13	24	655	33	49	30	6,925	32								
			Total			55	100	1,991	100	165	100								21,420
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	3	5	112	6	9	5	1,279	6	2.9	3.0	-.08	2.9	-.02	3.0	-.08	
		2	Some	15	27	457	23	42	25	4,614	22								
		3	Quite a bit	20	36	749	38	63	38	8,335	39								
		4	Very much	17	31	677	34	51	31	7,220	34								
			Total			55	100	1,995	100	165	100								21,448

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

Item wording or description				Variable name ^l				Frequency Distributions				Statistical Comparisons ^k												
								Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		
								Count	%	Count	%	Count	%	Count	%	Mean	Effect size ⁿ	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	24	350	18	29	18	3,617	17	2.3	2.6 *	-0.27	2.5	-0.17	2.5	-0.25
								2	Some	22	40	618	31	61	37	7,056	33							
								3	Quite a bit	11	20	565	28	43	26	6,297	29							
								4	Very much	9	16	462	23	31	19	4,504	21							
								Total		55	100	1,995	100	164	100	21,474	100							
e. Providing opportunities to be involved socially				SEsocial				1	Very little	8	15	151	8	11	7	1,461	7	2.7	2.9	-0.19	2.8	-0.11	2.9	-0.23
								2	Some	12	22	545	27	57	35	5,471	25							
								3	Quite a bit	24	44	716	36	49	30	8,329	39							
								4	Very much	11	20	576	29	46	28	6,198	29							
								Total		55	100	1,988	100	163	100	21,459	100							
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)				SEwellness				1	Very little	5	9	195	10	18	11	1,900	9	2.8	2.9	-0.10	2.8	-0.02	2.8	-0.09
								2	Some	15	27	488	25	47	29	5,468	25							
								3	Quite a bit	23	42	719	36	51	31	8,133	38							
								4	Very much	12	22	588	30	48	29	5,956	28							
								Total		55	100	1,990	100	164	100	21,457	100							
g. Helping you manage your non-academic responsibilities (work, family, etc.)				SEnonacad				1	Very little	24	44	655	33	59	36	7,132	33	1.9	2.1	-0.22	2.0	-0.14	2.1	-0.19
								2	Some	19	35	696	35	58	35	7,795	36							
								3	Quite a bit	6	11	394	20	31	19	4,275	20							
								4	Very much	6	11	246	12	16	10	2,240	10							
								Total		55	100	1,991	100	164	100	21,442	100							
h. Attending campus activities and events (performing arts, athletic events, etc.)				SEactivities				1	Very little	8	15	245	12	21	13	2,334	11	2.5	2.7	-0.22	2.7	-0.22	2.7 *	-0.29
								2	Some	21	39	605	30	52	32	6,099	28							
								3	Quite a bit	17	31	688	35	52	32	7,908	37							
								4	Very much	8	15	446	22	40	24	5,087	24							
								Total		54	100	1,984	100	165	100	21,428	100							
i. Attending events that address important social, economic, or political issues				SEevents				1	Very little	12	22	393	20	39	24	3,825	18	2.1	2.4	-0.24	2.2	-0.06	2.4 *	-0.30
								2	Some	27	49	738	37	69	43	7,845	37							
								3	Quite a bit	12	22	559	28	34	21	6,354	30							
								4	Very much	4	7	291	15	19	12	3,368	16							
								Total		55	100	1,981	100	161	100	21,392	100							

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k																								
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Your seniors 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 <i>(Recorded version of tmprep created by NSSE. Values are estimated number of hours per week.)</i>	0 0 hrs 3 1-5 hrs 8 6-10 hrs 13 11-15 hrs 18 16-20 hrs 23 21-25 hrs 28 26-30 hrs 33 More than 30 hrs Total	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs Total	0 2 10 7 8 9 7 12 55	0 4 18 13 15 16 13 22 100	8 174 392 394 367 254 168 244 2,001	0 9 20 20 18 13 8 12 100	0 12 48 32 22 20 14 18 166	0 7 29 19 13 12 8 11 100	61 1,862 4,058 4,125 4,126 2,851 1,787 2,671 21,541	0 9 19 19 19 13 8 12 100	20.4	▲	17.0 **	.37	▲	16.1 **	.46	17.2 **	.35																
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 0 hrs 3 1-5 hrs 8 6-10 hrs 13 11-15 hrs 18 16-20 hrs 23 21-25 hrs 28 26-30 hrs 33 More than 30 hrs Total	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs Total	0 21 5 7 2 2 0 2 53	0 40 9 13 4 4 0 4 100	715 621 298 161 97 49 30 23 1,994	36 31 15 8 5 2 2 1 100	70 53 26 7 4 5 0 1 166	42 32 16 4 2 3 0 1 100	6,865 7,044 3,388 1,814 1,136 604 270 329 21,450	32 33 16 8 5 3 1 2 100										6.5		5.4	.15	4.1	.37	5.8	.09								
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 0 hrs 3 1-5 hrs 8 6-10 hrs 13 11-15 hrs 18 16-20 hrs 23 21-25 hrs 28 26-30 hrs 33 More than 30 hrs Total	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs Total	0 10 14 4 3 0 0 0 54	0 19 26 7 6 0 0 0 100	1,158 147 253 188 159 50 23 20 1,998	58 7 13 9 8 3 1 1 100	98 8 21 13 11 5 3 6 165	59 5 13 8 7 3 2 4 100	12,009 1,952 3,076 1,942 1,649 482 194 207 21,511	56 9 14 9 8 2 1 1 100																		4.6		5.1	-.07	5.8	-.15	5.1	-.06

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k													
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016				Your seniors compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016							
				Count	%	Count	%	Count	%	Count	%	Count	%	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ						
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	30	56	1,032	52	81	50	11,876	55	8.7	8.7	.00	11.0	-.18	7.9	.08							
	(Recoded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	2	4	111	6	5	3	1,221	6														
	8	6-10 hrs	3	6	153	8	9	6	1,479	7															
	13	11-15 hrs	5	9	138	7	8	5	1,382	6															
	18	16-20 hrs	1	2	166	8	10	6	1,780	8															
	23	21-25 hrs	6	11	119	6	13	8	1,319	6															
	28	26-30 hrs	2	4	111	6	16	10	867	4															
	33	More than 30 hrs	5	9	156	8	20	12	1,476	7															
	Total		54	100	1,986	100	162	100	21,400	100															
	Estimated number of hours working for pay	tmworkhrs																	13.2	13.7	-.04	16.2	-.24	12.9	.03
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	20	37	871	44	80	48	9,767	46	3.8	3.4	.08	3.0	.18	3.0	.17							
	(Recoded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	22	41	764	39	55	33	8,396	39														
	8	6-10 hrs	6	11	185	9	20	12	1,863	9															
	13	11-15 hrs	4	7	78	4	5	3	652	3															
	18	16-20 hrs	1	2	40	2	3	2	365	2															
	23	21-25 hrs	1	2	24	1	1	1	164	1															
	28	26-30 hrs	0	0	12	1	1	1	64	0															
	33	More than 30 hrs	0	0	10	1	0	0	109	1															
Total		54	100	1,984	100	165	100	21,380	100																
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	1	2	63	3	6	4	509	2	11.3	10.3	.12	12.6	-.14	10.9	.05							
	(Recoded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	14	25	584	29	39	24	5,629	26														
	8	6-10 hrs	14	25	552	28	33	20	6,169	29															
	13	11-15 hrs	12	22	381	19	39	24	4,178	20															
	18	16-20 hrs	7	13	198	10	18	11	2,461	11															
	23	21-25 hrs	4	7	78	4	9	5	1,065	5															
	28	26-30 hrs	1	2	54	3	7	4	499	2															
33	More than 30 hrs	2	4	76	4	14	8	903	4																
Total		55	100	1,986	100	165	100	21,413	100																

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k																			
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016				Your seniors compared with											
Item wording or description	Variable name ^l	Values ^m	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech	Carnegie Class		THEC Peer Group		NSSE 2015 & 2016														
				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	43	78	1,360	69	113	68	15,992	75	2.2	4.3 *	-.23	4.5	-.25	3.3	-.14													
	(Recoded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	8	15	226	11	20	12	2,185	10																				
	8	6-10 hrs	0	0	106	5	7	4	918	4																					
	13	11-15 hrs	1	2	73	4	6	4	566	3																					
	18	16-20 hrs	1	2	47	2	5	3	411	2																					
	23	21-25 hrs	0	0	36	2	1	1	209	1																					
	28	26-30 hrs	0	0	19	1	0	0	146	1																					
	33	More than 30 hrs	2	4	116	6	13	8	1,009	5																					
	Total		55	100	1,983	100	165	100	21,436	100																					
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	8	15	283	14	20	12	4,130	19	3.7	5.2 **	-.27	5.5 **	-.37	4.6 *	-.19													
	(Recoded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	40	73	1,116	56	90	54	11,627	54																				
	8	6-10 hrs	2	4	381	19	35	21	3,790	18																					
	13	11-15 hrs	5	9	112	6	11	7	1,153	5																					
	18	16-20 hrs	0	0	42	2	6	4	402	2																					
	23	21-25 hrs	0	0	23	1	2	1	155	1																					
	28	26-30 hrs	0	0	11	1	1	1	68	0																					
	33	More than 30 hrs	0	0	29	1	1	1	199	1																					
	Total		55	100	1,997	100	166	100	21,524	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	15	27	346	17	33	20	3,666	17	2.3	2.6	-.26	2.6	-.25	2.6 *	-.29														
	(Revised for 2014. Comparison data are limited to NSSE 2014 participating institutions.)	2	Some	21	38	719	36	53	32	7,350								34													
	3	About half	10	18	475	24	42	25	5,606	26																					
	4	Most	7	13	346	17	29	18	3,639	17																					
	5	Almost all	2	4	100	5	8	5	1,220	6																					
	Total		55	100	1,986	100	165	100	21,481	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)																														
				7.6				7.2				.07				7.1				.07				7.3				.05			

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

Item wording or description	Variable name ^l	Values ^m	Response options	Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
				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	7	0	0	0	54	0								
	(Collapsed version of tmreadinghrs created by NSSE.)	2	More than zero, up to 5 hrs	28	51	978	49	85	52	10,143	47								
		3	More than 5, up to 10 hrs	15	27	544	27	44	27	6,259	29								
		4	More than 10, up to 15 hrs	3	5	193	10	13	8	2,202	10								
		5	More than 15, up to 20 hrs	3	5	129	7	10	6	1,434	7								
		6	More than 20, up to 25 hrs	4	7	105	5	10	6	986	5								
		7	More than 25 hrs	2	4	26	1	3	2	317	1								
			Total	55	100	1,982	100	165	100	21,395	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	2	4	147	7	19	11	1,548	7	2.7	2.9	-.21	2.8	-.05	2.9	-.20
		2	Some	22	40	478	24	47	28	5,203	24							
		3	Quite a bit	19	35	729	36	50	30	8,101	38							
		4	Very much	12	22	649	32	50	30	6,718	31							
			Total	55	100	2,003	100	166	100	21,570	100							
b. Speaking clearly and effectively	pgspeak	1	Very little	2	4	161	8	21	13	1,951	9	2.8	2.9	-.13	2.8	.02	2.9	-.08
		2	Some	21	38	477	24	43	26	5,423	25							
		3	Quite a bit	19	35	753	38	57	34	7,854	36							
		4	Very much	13	24	604	30	45	27	6,299	29							
			Total	55	100	1,995	100	166	100	21,527	100							
c. Thinking critically and analytically	pgthink	1	Very little	2	4	52	3	7	4	499	2	3.3	3.3	-.06	3.2	.06	3.4	-.10
		2	Some	5	9	254	13	30	18	2,526	12							
		3	Quite a bit	24	44	689	34	47	28	7,429	35							
		4	Very much	24	44	1,004	50	81	49	11,079	51							
			Total	55	100	1,999	100	165	100	21,533	100							
d. Analyzing numerical and statistical information	pganalyze	1	Very little	1	2	75	4	6	4	761	4	3.1	3.2	-.06	3.1	.05	3.2	-.09
		2	Some	10	18	361	18	43	26	3,726	17							
		3	Quite a bit	25	45	693	35	48	29	7,395	34							
		4	Very much	19	35	873	44	69	42	9,651	45							
			Total	55	100	2,002	100	166	100	21,533	100							

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k						
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		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. Acquiring job- or work-related knowledge and skills	pgwork	1	Very little	10	18	239	12	33	20	2,600	12	2.7	2.8	-.05	2.6	.13	2.8	-.04
		2	Some	13	24	568	28	48	29	6,079	28							
		3	Quite a bit	15	27	638	32	42	25	6,967	32							
		4	Very much	17	31	555	28	43	26	5,894	27							
		Total		55	100	2,000	100	166	100	21,540	100							
f. Working effectively with others	pgothers	1	Very little	2	4	113	6	17	10	1,260	6	2.9	3.0	-.12	2.8	.04	3.0	-.10
		2	Some	17	31	456	23	44	27	5,116	24							
		3	Quite a bit	22	40	777	39	55	33	8,351	39							
		4	Very much	14	25	648	32	50	30	6,785	32							
		Total		55	100	1,994	100	166	100	21,512	100							
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	7	13	284	14	45	27	3,225	15	2.6	2.7	-.13	2.5	.09	2.7	-.10
		2	Some	19	35	553	28	38	23	6,002	28							
		3	Quite a bit	19	35	608	30	40	24	6,607	31							
		4	Very much	10	18	551	28	42	25	5,705	26							
		Total		55	100	1,996	100	165	100	21,539	100							
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	5	9	276	14	34	20	3,074	14	2.7	2.7	.02	2.5	.16	2.6	.04
		2	Some	20	36	611	31	55	33	6,727	31							
		3	Quite a bit	17	31	594	30	34	20	6,484	30							
		4	Very much	13	24	515	26	43	26	5,259	24							
		Total		55	100	1,996	100	166	100	21,544	100							
i. Solving complex real-world problems	pgprobsolve	1	Very little	4	7	232	12	24	15	2,414	11	2.8	2.7	.11	2.6	.24	2.7	.10
		2	Some	14	26	575	29	57	35	6,311	29							
		3	Quite a bit	23	43	685	34	44	27	7,254	34							
		4	Very much	13	24	498	25	39	24	5,539	26							
		Total		54	100	1,990	100	164	100	21,518	100							
j. Being an informed and active citizen	pgcitizen	1	Very little	8	15	351	18	43	26	3,667	17	2.5	2.5	.02	2.3	.19	2.5	.01
		2	Some	17	31	660	33	54	33	7,151	33							
		3	Quite a bit	21	39	570	29	35	21	6,188	29							
		4	Very much	8	15	405	20	32	20	4,442	21							
		Total		54	100	1,986	100	164	100	21,448	100							

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Frequencies and Statistical Comparisons: Natural-Math Science

Tennessee Technological University

Seniors^a in Natural-Math Science

				Frequency Distributions								Statistical Comparisons ^k							
				Tennessee Tech				Carnegie Class				THEC Peer Group				NSSE 2015 & 2016			
				Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
Item wording or description	Variable name ^l	Values ^m	Response options	Count		Count		Count		Count		Mean	Mean	Effect size ⁿ		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	1	2	76	4	6	4	586	3	3.3	3.2	.22	3.1	.28	3.2	.14	
		2	Fair	6	11	259	13	35	21	2,707	13								
		3	Good	22	40	951	47	63	38	9,680	45								
		4	Excellent	26	47	726	36	63	38	8,644	40								
		Total		55	100	2,012	100	167	100	21,617	100								
19. If you could start over again, would you go to the same institution you are now attending?																			
	sameinst	1	Definitely no	4	7	153	8	22	13	1,282	6	3.2	3.0	.19	3.0	.25	3.1	.10	
		2	Probably no	9	16	307	15	26	16	3,197	15								
		3	Probably yes	13	24	839	42	55	33	8,655	40								
		4	Definitely yes	29	53	710	35	64	38	8,498	39								
		Total		55	100	2,009	100	167	100	21,632	100								

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science

Tennessee Technological University

Natural-Math Science

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
20a. How many majors do you plan to complete? (Do not count minors.)	MAJnum	One	26	87	1,792	86	122	87	16,804	83	46	84	1,757	87	139	83	18,097	83
		More than one	4	13	287	14	18	13	3,352	17	9	16	259	13	28	17	3,592	17
		Total	30	100	2,079	100	140	100	20,156	100	55	100	2,016	100	167	100	21,689	100
First major or expected first major, in NSSE's default related-major categories. (Does not reflect any customization made for the Major Field Report)	MAJfirstcol <i>(Recoded from MAJfirst.)</i>	Arts & Humanities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Biological Sci., Agriculture, & Natural Resources	21	70	1,613	78	104	74	15,180	75	38	69	1,432	71	121	72	15,263	70
		Physical Sci., Mathematics, & Computer Science	9	30	466	22	36	26	4,976	25	17	31	584	29	46	28	6,427	30
		Social Sciences	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Business	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Communications, Media, & Public Relations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Health Professions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Social Service Professions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		All Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Undecided, Undeclared	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	100	2,079	100	140	100	20,156	100	55	100	2,016	100	167	100	21,690	100		
Second major or expected second major, in NSSE's default related-major categories. (Does not reflect any customization made for the Major Field Report)	MAJsecondcol <i>(Recoded from MAJsecond.)</i>	Arts & Humanities	1	25	51	18	5	28	615	18	0	0	40	16	5	18	609	17
		Biological Sci., Agriculture, & Natural Resources	2	50	44	15	2	11	468	14	5	56	41	16	1	4	629	18
		Physical Sci., Mathematics, & Computer Science	0	0	60	21	2	11	779	23	2	22	51	20	7	25	823	23
		Social Sciences	0	0	34	12	2	11	526	16	0	0	50	19	8	29	626	18
		Business	0	0	12	4	1	6	165	5	0	0	8	3	1	4	108	3
		Communications, Media, & Public Relations	0	0	3	1	1	6	18	1	0	0	4	2	0	0	34	1
		Education	1	25	12	4	1	6	141	4	1	11	12	5	1	4	211	6
		Engineering	0	0	21	7	2	11	156	5	1	11	7	3	0	0	108	3
		Health Professions	0	0	34	12	2	11	313	9	0	0	28	11	2	7	268	7
		Social Service Professions	0	0	5	2	0	0	75	2	0	0	4	2	1	4	59	2
		All Other	0	0	5	2	0	0	45	1	0	0	12	5	2	7	79	2
		Undecided, Undeclared	0	0	4	1	0	0	37	1	0	0	1	0	0	0	20	1
Total	4	100	285	100	18	100	3,338	100	9	100	258	100	28	100	3,574	100		

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science

Tennessee Technological University

Natural-Math Science

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	NSSE 2015 & 2016																
			Tennessee Tech		Carnegie Class		THEC Peer Group		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016				
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%			
21. What is your class level?	class	Freshman/First-year	24	80	1,820	88	119	86	18,213	91	0	0	3	0	0	0	33	0	
		Sophomore	6	20	205	10	15	11	1,459	7	0	0	12	1	1	1	167	1	
		Junior	0	0	22	1	3	2	224	1	1	2	139	7	13	8	1,867	9	
		Senior	0	0	7	0	1	1	50	0	49	89	1,823	91	151	90	19,116	89	
		Unclassified	0	0	7	0	1	1	61	0	5	9	30	1	2	1	396	2	
		Total	30	100	2,061	100	139	100	20,007	100	55	100	2,007	100	167	100	21,579	100	
22. Thinking about this current academic term, are you a full-time student?	fulltime	No	0	0	39	2	5	4	345	2	7	13	284	14	27	16	2,733	13	
		Yes	30	100	2,017	98	134	96	19,591	98	48	87	1,713	86	139	84	18,739	87	
		Total	30	100	2,056	100	139	100	19,936	100	55	100	1,997	100	166	100	21,472	100	
23a. How many courses are you taking for credit this current academic term?	coursenum	0	0	0	0	7	0	1	1	39	0	1	2	46	2	2	1	322	1
		1	0	0	6	0	2	1	54	0	1	2	44	2	4	2	413	2	
		2	0	0	9	0	0	0	110	1	1	2	95	5	12	7	956	4	
		3	0	0	71	3	3	2	690	3	4	7	181	9	17	10	2,308	11	
		4	13	43	527	26	29	21	6,019	30	17	31	574	29	44	26	6,758	31	
		5	12	40	680	33	38	28	6,816	34	18	33	557	28	38	23	5,989	28	
		6	4	13	418	20	28	20	3,650	18	10	18	256	13	23	14	2,622	12	
		7 or more	1	3	344	17	37	27	2,634	13	3	5	254	13	27	16	2,224	10	
		Total	30	100	2,062	100	138	100	20,012	100	55	100	2,007	100	167	100	21,592	100	
b. Of these, how many are entirely online?	onlinenum	0	25	86	1,760	86	110	79	17,681	89	41	75	1,533	77	109	65	17,887	83	
		1	3	10	208	10	20	14	1,686	8	11	20	318	16	37	22	2,628	12	
		2	0	0	53	3	5	4	327	2	2	4	92	5	14	8	637	3	
		3	1	3	20	1	4	3	111	1	1	2	29	1	4	2	190	1	
		4	0	0	4	0	0	0	43	0	0	0	12	1	3	2	79	0	
		5	0	0	3	0	0	0	30	0	0	0	3	0	0	0	18	0	
		6	0	0	3	0	0	0	15	0	0	0	5	0	0	0	28	0	
		7 or more	0	0	7	0	0	0	22	0	0	0	4	0	0	0	30	0	
		Total	29	100	2,058	100	139	100	19,915	100	55	100	1,996	100	167	100	21,497	100	
Collapsed recode of courses taken online (Based on responses to coursenum and onlinenum)	onlinecrsol	No courses taken online	25	86	1,759	86	109	79	17,679	89	41	75	1,533	77	109	65	17,887	83	
		Some courses taken online	4	14	280	14	28	20	2,106	11	14	25	441	22	55	33	3,407	16	
		All courses taken online	0	0	18	1	1	1	128	1	0	0	22	1	3	2	203	1	
		Total	29	100	2,057	100	138	100	19,913	100	55	100	1,996	100	167	100	21,497	100	

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science

Tennessee Technological University

Natural-Math Science

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
24. What have most of your grades been up to now at this institution?	grades	C- or lower	0	0	41	2	2	1	290	1	1	2	11	1	1	1	85	0
		C	1	3	46	2	0	0	507	3	2	4	50	2	2	1	559	3
		C+	3	10	87	4	8	6	784	4	2	4	93	5	8	5	896	4
		B-	3	10	136	7	9	7	1,203	6	2	4	153	8	15	9	1,463	7
		B	1	3	350	17	19	14	3,483	17	13	24	391	20	30	18	4,085	19
		B+	5	17	371	18	19	14	3,593	18	6	11	349	17	30	18	3,788	18
		A-	5	17	426	21	25	18	4,081	20	8	15	363	18	32	19	4,109	19
		A	12	40	599	29	55	40	6,038	30	21	38	593	30	49	29	6,572	30
Total	30	100	2,056	100	137	100	19,979	100	55	100	2,003	100	167	100	21,557	100		
25. Did you begin college at this institution or elsewhere?	begincol	Started here	21	70	1,905	93	120	87	18,681	94	39	71	1,278	64	92	55	14,510	67
		Started elsewhere	9	30	154	7	18	13	1,283	6	16	29	720	36	75	45	7,042	33
		Total	30	100	2,059	100	138	100	19,964	100	55	100	1,998	100	167	100	21,552	100
26. Since graduating from high school, which of the following types of schools have you attended <i>other than</i> the one you are now attending? (Select all that apply.)	attend_voc	Vocational or technical school	0	0	49	2	6	4	379	2	0	0	111	6	12	7	914	4
	attend_com	Community or junior college	4	13	164	8	13	9	1,319	7	17	31	680	34	53	32	6,539	30
	attend_col	4-year college or university other than this one	4	13	157	8	14	10	1,374	7	13	24	441	22	48	29	4,895	23
	attend_none	None	20	67	1,657	81	102	74	16,664	84	28	52	980	49	75	45	11,285	52
	attend_other	Other	3	10	58	3	4	3	503	3	1	2	67	3	9	5	640	3
27. What is the highest level of education you ever expect to complete?	edaspire	Some college but less than a bachelor's degree	0	0	70	3	7	5	672	3	0	0	68	3	5	3	637	3
		Bachelor's degree (B.A., B.S., etc.)	7	23	290	14	20	15	2,625	13	10	18	340	17	22	13	3,533	16
		Master's degree (M.A., M.S., etc.)	4	13	423	21	23	17	4,360	22	20	36	517	26	44	26	5,591	26
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	19	63	1,271	62	87	64	12,251	62	25	45	1,078	54	96	57	11,754	55
		Total	30	100	2,054	100	137	100	19,908	100	55	100	2,003	100	167	100	21,515	100

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science Tennessee Technological University

Natural-Math Science

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
28. What is the highest level of education completed by either of your parents (or those who raised you)?	parented	Did not finish high school	0	0	147	7	9	7	957	5	0	0	143	7	5	3	903	4
		High school diploma or G.E.D.	4	13	356	17	17	13	2,873	14	8	15	333	17	31	19	3,126	15
		Attended college, but did not complete degree	4	13	236	12	15	11	1,938	10	10	18	205	10	19	11	1,987	9
		Associate's degree (A.A., A.S., etc.)	5	17	180	9	20	15	1,876	9	8	15	198	10	16	10	2,018	9
		Bachelor's degree (B.A., B.S., etc.)	9	30	564	27	30	22	5,703	29	13	24	563	28	44	26	6,319	29
		Master's degree (M.A., M.S., etc.)	4	13	384	19	34	25	4,302	22	11	20	365	18	30	18	4,511	21
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	4	13	184	9	11	8	2,256	11	5	9	198	10	22	13	2,660	12
		Total	30	100	2,051	100	136	100	19,905	100	55	100	2,005	100	167	100	21,524	100
First-generation status (No parent holds a bachelor's degree)	firstgen (Recoded from parented)	Not first-generation	17	57	1,132	55	75	55	12,261	62	29	53	1,126	56	96	57	13,490	63
		First-generation	13	43	919	45	61	45	7,644	38	26	47	879	44	71	43	8,034	37
		Total	30	100	2,051	100	136	100	19,905	100	55	100	2,005	100	167	100	21,524	100
29. What is your gender identity?	genderid	Man	8	27	597	29	37	27	6,107	31	17	31	745	37	64	38	7,909	37
		Woman	22	73	1,439	70	97	70	13,521	68	38	69	1,212	61	101	60	13,156	61
		Another gender identity	0	0	9	0	2	1	112	1	0	0	14	1	0	0	130	1
		I prefer not to respond	0	0	14	1	2	1	219	1	0	0	30	1	2	1	341	2
		Total	30	100	2,059	100	138	100	19,959	100	55	100	2,001	100	167	100	21,536	100
30. Enter your year of birth (e.g., 1994):	agecat (Recoded from the information entered in birthyear)	19 or younger	28	97	1,900	93	119	87	18,528	93	0	0	26	1	3	2	234	1
		20-23	1	3	104	5	8	6	1,009	5	47	85	1,452	73	112	67	16,511	77
		24-29	0	0	29	1	5	4	193	1	7	13	330	17	27	16	2,979	14
		30-39	0	0	16	1	4	3	98	0	1	2	124	6	13	8	1,222	6
		40-55	0	0	4	0	1	1	35	0	0	0	59	3	11	7	400	2
		Over 55	0	0	0	0	0	0	6	0	0	0	5	0	0	0	53	0
		Total	29	100	2,053	100	137	100	19,869	100	55	100	1,996	100	166	100	21,399	100
31a. Are you an international student?	internat	No	29	97	1,915	94	127	93	18,770	95	52	98	1,926	96	163	98	20,626	97
		Yes	1	3	122	6	10	7	999	5	1	2	70	4	3	2	744	3
		Total	30	100	2,037	100	137	100	19,769	100	53	100	1,996	100	166	100	21,370	100
International student country of citizenship, collapsed into regions by NSSE. Responses to country are in the data file. U.S. (domestic) students did not receive this question.	countrycol (Recoded from country.)	Africa Sub-Saharan	0	0	14	12	2	22	120	13	0	0	10	16	0	0	90	13
		Asia	1	100	42	36	5	56	467	49	0	0	25	39	1	33	349	50
		Canada	0	0	6	5	0	0	46	5	0	0	4	6	0	0	36	5
		Europe	0	0	11	9	1	11	96	10	0	0	3	5	0	0	86	12
		Latin America and Caribbean	0	0	32	27	0	0	146	15	1	100	13	20	2	67	99	14
		Middle East and North Africa	0	0	11	9	1	11	68	7	0	0	9	14	0	0	36	5
		Oceania	0	0	1	1	0	0	10	1	0	0	0	0	0	0	7	1
		Unknown region/uncoded	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		Total	1	100	117	100	9	100	954	100	1	100	64	100	3	100	703	100

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science Tennessee Technological University

Natural-Math Science

			First-Year Students ^a								Seniors ^a								
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	
32. What is your racial or ethnic identification? (Select all that apply.)	re_amind	American Indian or Alaska Native	2	7	53	3	5	4	434	2	1	2	35	2	2	1	407	2	
	re_asian	Asian	1	3	335	16	11	8	2,656	13	4	7	247	12	10	6	2,468	11	
	re_black	Black or African American	0	0	254	12	39	28	2,130	11	1	2	151	8	22	13	1,454	7	
	re_latino	Hispanic or Latino	1	3	434	21	6	4	2,628	13	0	0	365	18	5	3	2,205	10	
	re_pacific	Native Hawaiian or Other Pacific Islander	0	0	30	1	2	1	200	1	0	0	17	1	2	1	189	1	
	re_white	White	25	83	1,060	52	83	60	12,782	64	50	93	1,213	61	123	74	15,044	70	
	re_other	Other	1	3	81	4	4	3	550	3	0	0	72	4	5	3	591	3	
	re_pnr	I prefer not to respond	1	3	64	3	6	4	631	3	0	0	77	4	6	4	988	5	
	Racial or ethnic identification	re_all	American Indian or Alaska Native	1	3	5	0	0	0	74	0	0	0	8	0	0	0	94	0
		(Recoded from re_amind through re_pnr where each student is represented only once)	Asian	1	3	264	13	8	6	2,135	11	2	4	204	10	8	5	1,966	9
re_amind		Black or African American	0	0	194	9	33	24	1,673	8	1	2	124	6	21	13	1,206	6	
re_pnr		Hispanic or Latino	1	3	346	17	2	1	1,886	9	0	0	296	15	5	3	1,554	7	
re_pnr		Native Hawaiian/Other Pac. Islander	0	0	5	0	0	0	44	0	0	0	3	0	0	0	47	0	
re_pnr		White	24	80	907	44	74	54	11,362	57	49	91	1,092	55	115	69	13,699	64	
re_pnr		Other	1	3	52	3	3	2	342	2	0	0	48	2	3	2	368	2	
re_pnr		Multiracial	1	3	218	11	12	9	1,774	9	2	4	150	7	8	5	1,581	7	
	I prefer not to respond	1	3	64	3	6	4	631	3	0	0	77	4	6	4	988	5		
	Total		30	100	2,055	100	138	100	19,921	100	54	100	2,002	100	166	100	21,503	100	
33. Are you a member of a social fraternity or sorority?	greek	No	29	97	1,906	93	122	88	18,084	91	48	87	1,837	92	150	90	19,092	89	
		Yes	1	3	142	7	16	12	1,800	9	7	13	161	8	17	10	2,385	11	
		Total	30	100	2,048	100	138	100	19,884	100	55	100	1,998	100	167	100	21,477	100	
34. Which of the following best describes where you are living while attending college?	living	Dormitory or other campus housing (not fraternity or sorority house)	16	53	1,155	56	80	58	13,764	69	7	13	361	18	29	17	4,995	23	
		Fraternity or sorority house	0	0	4	0	0	0	119	1	0	0	14	1	2	1	339	2	
		Residence (house, apartment, etc.) within walking distance to the institution	3	10	134	7	15	11	1,247	6	20	36	413	21	32	19	5,651	26	
		Residence (house, apartment, etc.) farther than walking distance to the institution	11	37	666	33	41	30	4,242	21	27	49	1,146	57	101	60	10,056	47	
		None of the above	0	0	86	4	2	1	470	2	1	2	63	3	3	2	437	2	
		Total	30	100	2,045	100	138	100	19,842	100	55	100	1,997	100	167	100	21,478	100	
35. Are you a student-athlete on a team sponsored by your institution's athletics department?	athlete	No	27	90	1,893	93	127	92	17,759	89	52	96	1,893	95	165	99	19,653	92	
		Yes	3	10	146	7	11	8	2,084	11	2	4	102	5	1	1	1,781	8	
		Total	30	100	2,039	100	138	100	19,843	100	54	100	1,995	100	166	100	21,434	100	

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science Tennessee Technological University

Natural-Math Science

			First-Year Students ^a								Seniors ^a							
			Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
36. Are you a current or former member of the U.S. Armed Forces, Reserves, or National Guard?	veteran	No	29	100	2,012	98	134	98	19,579	99	55	100	1,930	97	159	95	20,735	97
		Yes	0	0	32	2	3	2	218	1	0	0	67	3	8	5	688	3
		Total	29	100	2,044	100	137	100	19,797	100	55	100	1,997	100	167	100	21,423	100
37a. Have you been diagnosed with any disability or impairment?	disability	No	23	77	1,821	89	119	86	17,581	88	48	89	1,737	87	134	80	18,536	86
		Yes	6	20	166	8	15	11	1,733	9	4	7	188	9	21	13	2,213	10
		I prefer not to respond	1	3	61	3	4	3	574	3	2	4	77	4	12	7	737	3
		Total	30	100	2,048	100	138	100	19,888	100	54	100	2,002	100	167	100	21,486	100
b. [If answered "yes"] Which of the following has been diagnosed? (Select all that apply.)	dis_sense	A sensory impairment (vision or hearing)	0	0	30	19	2	13	313	18	1	25	22	12	3	14	271	12
	dis_mobility	A mobility impairment	0	0	12	7	0	0	112	6	1	25	14	7	1	5	165	7
	dis_learning	A learning disability (e.g., ADHD, dyslexia)	4	67	59	36	6	40	691	40	0	0	80	43	10	48	1,026	47
	dis_mental	A mental health disorder	2	33	53	33	6	40	667	39	1	25	78	42	8	38	903	41
	dis_other	A disability or impairment not listed above	1	17	42	26	5	33	319	18	1	25	39	21	7	33	396	18
Disability or impairment	disability_all	A sensory impairment	0	0	24	1	2	1	226	1	1	2	17	1	1	1	167	1
	(Recoded from disability and dis_sense through dis_other where each student is represented only once)	A mobility impairment	0	0	6	0	0	0	68	0	1	2	7	0	0	0	82	0
		A learning disability	3	10	42	2	3	2	472	2	0	0	54	3	7	4	695	3
		A mental health disorder	2	7	32	2	3	2	436	2	1	2	49	2	4	2	541	3
		A disability or impairment not listed	0	0	29	1	4	3	208	1	1	2	23	1	4	2	248	1
		More than one disability or impairment	1	3	29	1	3	2	316	2	0	0	37	2	5	3	472	2
		No disability or impairment	23	77	1,821	89	119	86	17,581	88	48	89	1,737	87	134	80	18,536	86
		Prefer not to respond	1	3	61	3	4	3	574	3	2	4	77	4	12	7	737	3
	Total	30	100	2,044	100	138	100	19,881	100	54	100	2,001	100	167	100	21,478	100	
38. Which of the following best describes your sexual orientation? (Question administered per institution request)	sexorient14	Heterosexual	--	--	637	83	31	72	7,781	85	--	--	698	85	73	81	8,690	85
		Gay	--	--	12	2	0	0	115	1	--	--	14	2	1	1	191	2
		Lesbian	--	--	5	1	0	0	71	1	--	--	9	1	1	1	87	1
		Bisexual	--	--	30	4	2	5	397	4	--	--	30	4	5	6	399	4
		Another sexual orientation	--	--	16	2	3	7	176	2	--	--	14	2	3	3	164	2
		Questioning or unsure	--	--	21	3	4	9	195	2	--	--	10	1	0	0	135	1
		I prefer not to respond	--	--	42	6	3	7	468	5	--	--	51	6	7	8	552	5
		Total	--	--	763	100	43	100	9,203	100	--	--	826	100	90	100	10,218	100

NSSE 2016 Major Field Report, Part II: Comparisons to Other Institutions

Respondent Profile: Natural-Math Science Tennessee Technological University

Natural-Math Science

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016		Tennessee Tech		Carnegie Class		THEC Peer Group		NSSE 2015 & 2016	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Institution-reported information																		
(Variables provided by your institution in your NSSE population file.)																		
Institution-reported sex	IRsex	Female	22	73	1,470	71	100	71	13,876	69	38	69	1,242	62	103	62	13,515	62
		Male	8	27	609	29	40	29	6,278	31	17	31	773	38	64	38	8,174	38
		Total	30	100	2,079	100	140	100	20,154	100	55	100	2,015	100	167	100	21,689	100
Institution-reported race or ethnicity	IRrace	American Indian or Alaska Native	0	0	3	0	0	0	96	1	0	0	9	0	1	1	116	1
		Asian	1	3	245	13	4	3	1,585	9	2	4	160	9	8	5	1,511	8
		Black or African American	0	0	192	10	35	25	1,619	9	1	2	116	6	19	11	1,142	6
		Hispanic or Latino	0	0	388	20	6	4	2,340	13	0	0	316	17	5	3	2,010	10
		Native Hawaiian/Other Pac. Islander	0	0	2	0	0	0	38	0	0	0	5	0	0	0	82	0
		White	28	93	873	45	75	54	10,792	58	50	91	1,051	57	118	71	13,026	66
		Other	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
		Foreign or nonresident alien	0	0	82	4	10	7	805	4	0	0	46	2	2	1	567	3
		Two or more races/ethnicities	1	3	82	4	6	4	725	4	2	4	52	3	11	7	675	3
		Unknown	0	0	73	4	4	3	525	3	0	0	90	5	3	2	721	4
		Total	30	100	1,940	100	140	100	18,527	100	55	100	1,845	100	167	100	19,852	100
Institution-reported class level	IRclass	Freshman/First-Year	30	100	2,079	100	140	100	20,156	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	55	100	2,016	100	167	100	21,690	100
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	30	100	2,079	100	140	100	20,156	100	55	100	2,016	100	167	100	21,690	100
Institution-reported first-time first-year (FTFY) status	IRftfy	No	3	10	180	9	19	14	1,434	7	55	100	2,016	100	167	100	21,430	99
		Yes	27	90	1,899	91	121	86	18,722	93	0	0	0	0	0	0	259	1
		Total	30	100	2,079	100	140	100	20,156	100	55	100	2,016	100	167	100	21,689	100
Institution-reported enrollment status	IRenrollment	Not full-time	0	0	48	2	5	4	442	2	9	16	239	12	28	17	2,348	11
		Full-time	30	100	2,031	98	135	96	19,714	98	46	84	1,777	88	139	83	19,342	89
		Total	30	100	2,079	100	140	100	20,156	100	55	100	2,016	100	167	100	21,690	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. $*p < .05$, $**p < .01$, $***p < .001$ (z -test comparing participation rates).
- j. Cohen's h : The standardized difference between two proportions. Effect size indicates the practical importance of an observed difference. NSSE research has found that interpretations vary by HIP: For service-learning, internships, study abroad, and culminating senior experiences, an effect size of about .2 may be considered small, .5 medium, and .8 large. For learning community and research with faculty, an effect size of about .1 may be considered small, .3 medium, and .5 large (Rocconi & Gonyea, 2015).
- k. Means calculated from ordered response options (e.g., Very Often, Often, Sometimes, Never) assume equal intervals and should be interpreted with caution. Unless otherwise noted, statistical comparisons are two-tailed independent t -tests. Exceptions are the dichotomous high-impact practice items (11a to 11f) which are compared using a z -test.
- l. Items that make up the Engagement Indicators include the following two-letter prefixes: CL = Collaborative Learning, DD = Discussions with Diverse Others, ET = Effective Teaching Practices, HO = Higher-Order Learning, LS = Learning Strategies, QI = Quality of Interactions, QR = Quantitative Reasoning, RI = Reflective and Integrative Learning, SE = Supportive Environment, and SF = Student-Faculty Interaction.
- m. These are the values used to calculate means. For the majority of items, these values match the codes in the data file and codebook. For items estimating number of papers and hours per week, the values represent actual units using the midpoints of response option ranges and an estimate for unbounded options.
- n. Effect size for independent t -tests uses Cohen's d ; z -tests use Cohen's h .
- o. Statistical comparison uses z -test to compare the percentage who responded "Done or in progress."

Key to symbols:

- ▲ Your students' average was significantly higher ($p < .05$) with an effect size at least .3 in magnitude.
- △ Your students' average was significantly higher ($p < .05$) with an effect size less than .3 in magnitude.
- ▽ Your students' average was significantly lower ($p < .05$) with an effect size less than .3 in magnitude.
- ▼ Your students' average was significantly lower ($p < .05$) with an effect size at least .3 in magnitude.

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

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